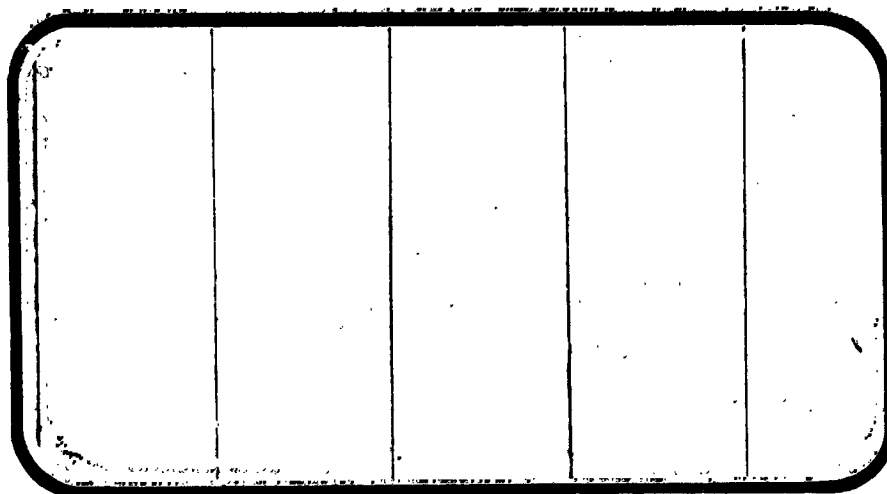




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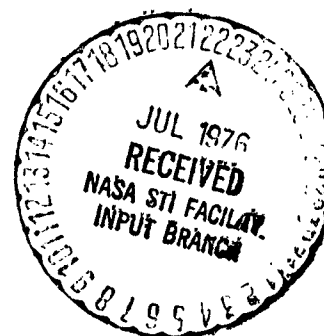
(NASA-CR-147604) RESULTS OF TEST MA22 IN
THE NASA/LARC 31-INCH CFHT ON AN 0.010-SCALE
MODEL (32-0) OF THE SPACE SHUTTLE
CONFIGURATION 3 TO DETERMINE RCS JET FLOW
FIELD INTERACTION, VOLUME 1 (Chrysler

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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER

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SPACE DIVISION



CHRYSLER
CORPORATION

May, 1976

DMS-DR-2267
NASA CR-147,604
VOLUME 1 OF 4

RESULTS OF TEST MA22 IN THE NASA/LARC 31-INCH CFHT
ON AN 0.010-SCALE MODEL (32-0) OF THE
SPACE SHUTTLE CONFIGURATION 3 TO DETERMINE
RCS JET FLOW FIELD INTERACTION

by

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Prepared under NASA Contract Number NAS9-13247

by

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New Orleans, La. 70189

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Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: LaRC CFHT 118
NASA Series Number: MA22
Model Number: 32-0
Test Dates: May 6, 1975 through June 3, 1975
Occupancy Hours: 168

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RESULTS OF TEST MA22 IN THE NASA/LaRC 31-INCH CFHT
ON AN 0.010-SCALE MODEL (S2-0) OF THE
SPACE SHUTTLE CONFIGURATION 3 TO DETERMINE
RCS JET FLOW FIELD INTERACTION

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ABSTRACT

Test MA22 was conducted in the Langley Research Center 31-inch Continuous Flow Hypersonic Wind Tunnel from May 6, 1975 through June 3, 1975. The primary objectives of this test were the following: 1) to study the ability of the wind tunnel to repeat, on a run-to-run basis, data taken for identical configurations to determine if errors in repeatability could have a significant effect on jet interaction data, 2) to determine the effect of model heating on jet interaction, 3) to investigate the effects of elevon and body flap deflections on RCS jet interaction, 4) to determine if the effects from jets fired separately along different axes can be added to equal the effects of the jets fired simultaneously (super position effects), 5) to study multiple jet effects, and 6) to investigate area ratio effects, i.e., the effect on jet interaction measurements of using nozzles with different area ratios in the same location. The model used in the test was a .010-scale model of the Space Shuttle Orbiter Config-

ABSTRACT (Concluded)

ration 3. The test was conducted at Mach 10.3 and a dynamic pressure of 150 psf. RCS chamber pressure was varied to simulate free flight dynamic pressures of 5, 7.5, 10, and 20 psf.

TABLE OF CONTENTS

	Page
ABSTRACT	111
INDEX OF MODEL FIGURES	2
INDEX OF DATA FIGURES	3
NOMENCLATURE	12
REMARKS	18
CONFIGURATIONS INVESTIGATED	19
INSTRUMENTATION	20
TEST FACILITY DESCRIPTION	21
DATA REDUCTION	22
REFERENCES	25
TABLES	
I. TEST CONDITIONS	26
II. DATA SET/RUN NUMBER COLLATION SUMMARY	27
III. MODEL DIMENSIONAL DATA	47
IV. SUMMARY OF NOZZLE NOMENCLATURE	78
V. SIMULATION PARAMETERS	80
VI. THRUST COEFFICIENT FACTORS	81
VII. WING TEMPERATURES	82
FIGURES	
MODEL	84
DATA	91
VOLUME 1 (Figures 4-43)	
VOLUME 2 (Figures 44-77)	
VOLUME 3 (Figures 78-95)	
APPENDIX	
TABULATED SOURCE DATA (VOLUME 4)	

INDEX OF MODEL FIGURES

Figure	Title	Page
1.	Axis systems.	84
2.	Model sketches.	
	a. Orbiter Configuration.	85
	b. RCS Plenum Nozzle Block Installation.	86
	c. RCS Nozzle Adapter.	87
	d. Model Nozzle Block Configurations.	88
3.	Model photographs.	
	a. Orbiter Installation Side View.	89
	b. Side View of Nozzle Assembly Installed in Tunnel.	90

INDEX OF DATA FIGURES

FIGURE NUMBER	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED		CONDITIONS VARYING	PAGES
VOLUME 1					
4	JET OFF AERO, ELEVON = 0, BDFLAP = 0, BETA = 0	A		CONFIG.	1-6
5	JET OFF AERO, ELEVON = 0, BDFLAP = 0, BETA = 0	A		CONFIG.	7-12
6	JET OFF AERO, ELEVON = 0, BDFLAP = 0, BETA = 0	A		CONFIG.	13-18
7	JET OFF AERO, ELEVON = 0, BDFLAP = 0, BETA = 0	A		CONFIG.	19-24
8	JET OFF AERO, ELEVON = -30, BDFLAP = 0, BETA=0	A		CONFIG.	25-30
9	JET OFF AERO, ELEVON = 10, BDFLAP = -14.25, BETA = 0	A		CONFIG.	31-36
10	JET OFF AERO, ELEVON = 10, BDFLAP = 13.75, BETA = 0	A		CONFIG.	37-42
11	JET OFF AERO, ELEVON = 10, BDFLAP = 0, BETA = 0	A		CONFIG.	43-48
12	JET OFF AERO, ELEVON = 0, BDFLAP = -14.25, BETA = 0	A		CONFIG.	49-54
13	JET OFF AERO, ELEVON = 0, BDFLAP = 13.75, BETA = 0	A		CONFIG.	55-60
14	JET OFF AERO, ELEVON = -30, BDFLAP = -14.25, BETA = 0	A		CONFIG.	61-66
15	JET OFF AERO, ELEVON = 0, BDFLAP = 0, BETA = 3	A		CONFIG.	67-72
16	JET OFF AERO, ELEVON = 0, BDFLAP = 0, BETA = -3	A		CONFIG.	73-78

INDEX OF DATA FIGURES (Continued)

FIGURE NUMBER	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED	CONDITIONS VARYING	PAGES
17	MEAN AND STANDARD DEVIATION FOR VARIATION WITH ALPHA	B	-	79-80
18	MEAN AND STANDARD DEVIATION FOR VARIATION WITH BETA	C	-	81-82
19	MEAN, MAXIMUM, AND MINIMUM FOR VARIATION WITH ALPHA	B	-	83-84
20	MEAN, MAXIMUM, AND MINIMUM FOR VARIATION WITH BETA	C	-	85-86
21	EFFECT OF MODEL TEMPERATURE ON JET-ON AERO CHARACTERISTICS	D	ALPHA	87-92
22	EFFECT OF MODEL TEMPERATURE ON JET-OFF AERO CHARACTERISTICS	D	ALPHA	93-98
23	EFFECT OF MODEL TEMPERATURE ON JET ON-JET OFF AERO CHARACTERISTICS	E	ALPHA	99-104
24	COMPARISON OF ON/OFF VS ON-OFF RUNS	F	-	105-110
25	EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83	G	CONFIG., NO. JET, ALPHA	111-200
26	EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85	G	CONFIG., NO. JET, ALPHA	201-290
27	EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82	G	CONFIG., NO. JET, ALPHA	291-380
28	AMPLIFICATION FACTORS FOR JETS N79N78	G	ALPHA	381-470

INDEX OF DATA FIGURES (Continued)

FIGURE NUMBER	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED	CONDITIONS VARYING	PAGES
29	AMPLIFICATION FACTORS FOR JETS N50N85	G	ALPHA	471-500
30	AMPLIFICATION FACTORS FOR JETS N84	G	ALPHA	501-590
31	AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N79	H	T/QA-I	591-596
32	AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N49	H	T/QA-I	597-602
33	AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N83	H	T/QA-I	603-663
34	AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N51	H	T/QA-I	609-614
35	AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N85	H	T/QA-I	615-620
36	AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N78	H	T/QA-I	621-626
37	AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N52	H	T/QA-I	627-632
38	AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N82	H	T/QA-I	633-638
39	AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JETS N79N78	H	T/QA-I	639-644
40	AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N50N85	H	T/QA-I	645-650

INDEX OF DATA FIGURES (Continued)

FIGURE NUMBER	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED		CONDITIONS VARYING	PAGES
		H	G		
41	AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N84	H		T/QA-1	651-656
42	EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83	G		ALPHA, CONFIG., NO. JET, BDFLAP	657-686
43	EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78	G		ALPHA, BDFLAP	687-716
<u>VOLUME 2</u>					
44	EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N50N85	G		ALPHA, BDFLAP	717-746
45	EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83	G		ALPHA, BDFLAP, NO. JET, CONFIG.	747-776
46	EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78	G		ALPHA, BDFLAP	777-806
47	EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N50N85	G		ALPHA, BDFLAP	807-836
48	EFFECT OF ELEVON ON AMPLIFICATION FACTOR, JETS N79, N49, N83	G		ALPHA, CONFIG., NO. JET, ELEVON	837-866
49	EFFECT OF ELEVON ON AMPLIFICATION FACTOR, JETS N51, N85	G		ALPHA, CONFIG., NO. JET, ELEVON	867-896
50	EFFECT OF ELEVON ON AMPLIFICATION FACTOR, JETS N79N78	G		ALPHA, ELEVON	897-926

INDEX OF DATA FIGURES (Continued)

FIGURE NUMBER	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED	CONDITIONS VARYING	PAGES
51	EFFECT OF ELEVON ON AMPLIFICATION FACTOR, JETS N50N85	G	ALPHA, ELEVON	927-956
52	EFFECT OF ELEVON ON AMPLIFICATION FACTOR, JET N84	G	ALPHA, ELEVON	957-986
53	EFFECT OF ELEVON ON AMPLIFICATION FACTOR, JETS N79, N49, N83	G	ALPHA, CONFIG., NO. JET, ELEVON	987-1016
54	EFFECT OF ELEVON ON AMPLIFICATION FACTOR, JETS N51, N85	G	ALPHA, CONFIG., NO. JET, ELEVON	1017-1046
55	EFFECT OF ELEVON ON AMPLIFICATION FACTOR, JETS N79N78	G	ALPHA, ELEVON	1047-1076
56	EFFECT OF ELEVON ON AMPLIFICATION FACTOR, JETS N50N85	G	ALPHA, ELEVON	1077-1106
57	EFFECT OF ELEVON ON AMPLIFICATION FACTOR, JET N84	G	ALPHA, ELEVON	1107-1136
58	DELTA AMPLIFICATION FACTOR, ELEVON = 10, AND -30, N79 JETS	I	ELEVON, T/QA-1	1137-1142
59	DELTA AMPLIFICATION FACTOR, ELEVON = 10, AND -30, N49 JETS	I	ELEVON, T/QA-1	1143-1148
60	DELTA AMPLIFICATION FACTOR, ELEVON = 10, AND -30, N83 JETS	I	ELEVON, T/QA-1	1149-1154
61	DELTA AMPLIFICATION FACTOR, ELEVON = 10, AND -30, N51 JETS	I	ELEVON, T/QA-1	1155-1160

INDEX OF DATA FIGURES (Continued)

FIGURE NUMBER	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED		CONDITIONS VARYING	PAGES
62	DELTA AMPLIFICATION FACTOR, ELEVON = 10, AND -30, N85 JETS	I		ELEVON, T/QA-1	1167-1166
63	DELTA AMPLIFICATION FACTOR, ELEVON = 10, AND -30, N79N78 JETS	I		ELEVON, T/QA-1	1167-1172
64	DELTA AMPLIFICATION FACTOR, ELEVON = 10, AND -30, N50N85 JETS	I		ELEVON, T/QA-1	1173-1178
65	DELTA AMPLIFICATION FACTOR, ELEVON = 10, AND -30, N84 JETS	I		ELEVON, T/QA-1	1179-1184
66	DELTA AMPLIFICATION FACTOR, BODYFLAP = 13.75, AND -14.25, N79 JET	I		BDFLAP, T/QA-1	1185-1190
67	DELTA AMPLIFICATION FACTOR, BODYFLAP = 13.75, AND -14.25, N49 JETS	I		BDFLAP, T/QA-1	1191-1196
68	DELTA AMPLIFICATION FACTOR, BODYFLAP = 13.75, AND -14.25, N83 JETS	I		BDFLAP, T/QA-1	1197-1202
69	DELTA AMPLIFICATION FACTOR, BODYFLAP = 13.75, AND -14.25, N79N78 JETS	I		BDFLAP, T/QA-1	1203-1208
70	DELTA AMPLIFICATION FACTOR, BODYFLAP = 13.75, AND -14.25, N50N85 JETS	I		BDFLAP, T/QA-1	1209-1214
71	EFFECT OF ELEVON/BODY FLAP ON AMPLIFICATION FACTOR, JETS N79	G		ELEVON, BDFLAP ALPHA	1215-1214
72	EFFECT OF ELEVON/BODY FLAP ON AMPLIFICATION FACTOR, JETS N49	G		ELEVON, BDFLAP ALPHA	1245-1244

INDEX OF DATA FIGURES (Continued)

FIGURE NUMBER	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED		CONDITIONS VARYING	PAGES
73	EFFECT OF ELEVON/BODY FLAP ON AMPLIFICATION FACTOR, JETS N83	G		ELEVON, BDFLAP ALPHA	1275-1304
74	EFFECT OF ELEVON/BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78	G		ELEVON, BDFLAP ALPHA	1305-1334
75	EFFECT OF ELEVON/BODY FLAP ON AMPLIFICATION FACTOR, JETS N79	G		ELEVON, BDFLAP ALPHA	1335-1364
76	EFFECT OF ELEVON/BODY FLAP ON AMPLIFICATION FACTOR, JETS N49	G		ELEVON, BDFLAP ALPHA	1365-1394
77	EFFECT OF ELEVON/BODY FLAP ON AMPLIFICATION FACTOR, JETS N83	G		ELEVON, BDFLAP ALPHA	1395-1424
<u>VOLUME 3</u>					
78	EFFECT OF ELEVON/BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78	G		ELEVON, BDFLAP ALPHA	1425-1454
79	EFFECT OF ELEVON/BODY FLAP ON AMPLIFICATION FACTOR, JETS N50N85	G		ELEVON, BDFLAP ALPHA	1455-1484
80	EFFECT OF ELEVON/BODY FLAP ON AMPLIFICATION FACTOR, JETS N50N85	G		ELEVON, BDFLAP ALPHA	1485-1514
81	EFFECT OF ELEVON/BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78	G		ELEVON, BDFLAP ALPHA	1515-1544
82	AMPLIFICATION FACTOR IN YAW, N79 JETS	J		T/QA-1, ALPHA	1545-1574
83	AMPLIFICATION FACTOR IN YAW, N49 JETS	J		T/QA-1, ALPHA	1575-1604

INDEX OF DATA FIGURES (Continued)

FIGURE NUMBER	TITLE	SCHEDULE OF COEFFICIENTS PLOTTED	CONDITIONS VARYING	PAGES
84	AMPLIFICATION FACTOR IN YAW, N83 JETS	J	T/QA-1, ALPHA	1605-1634
85	AMPLIFICATION FACTOR IN YAW, N78 JETS	J	T/QA-1, ALPHA	1635-1664
86	AMPLIFICATION FACTOR IN YAW, N52 JETS	J	T/QA-1, ALPHA	1665-1694
87	AMPLIFICATION FACTOR IN YAW, N82 JETS	J	T/QA-1, ALPHA	1695-1724
88	AMPLIFICATION FACTOR IN YAW, N51 JETS	J	T/QA-1, ALPHA	1725-1754
89	AMPLIFICATION FACTOR IN YAW, N85 JETS	J	T/QA-1, ALPHA	1755-1784
90	AMPLIFICATION FACTOR IN YAW, N79N78 JETS	J	T/QA-1, ALPHA	1785-1814
91	AMPLIFICATION FACTOR IN YAW, N50N85 JETS	J	T/QA-1, ALPHA	1815-1844
92	AMPLIFICATION FACTOR IN YAW, N84 JETS	J	T/QA-1, ALPHA	1845-1874
93	AREA RATIO EFFECTS, L/H DOWN FIRING JETS	G	ALPHA, CONFIG.	1875-1958
94	AREA RATIO EFFECTS, R/H UP FIRING JETS	G	ALPHA, CONFIG.	1959-2048
95	AREA RATIO EFFECTS, L/W SIDE FIRING JETS	G	ALPHA, CONFIG.	2049-2138

INDEX OF DATA FIGURES (Concluded)

SCHEDULE OF COEFFICIENTS PLOTTED:

- (A) CN, CLM, CAU, CBL, CYN, CY versus ALPHA
- (B) CLM, CN versus ALPHA
- (C) CBL, CYN versus BETA
- (D) CN, CLM, CAU, CBL, CYN, CY versus TEMP
- (E) DLTCN, DLTCLM, DLTCAU, DLTCBL, DLTCYN, DLTCY versus TEMP
- (F) DLTCN, DLTCLM, DLTCAU, DLTCBL, DLTCYN, DLTCY versus ALPHA
- (G) N(NF), N(PM), N(AF), N(RM), N(YM), N(SF) versus QA/T
- (H) N(PM), N(RM), N(YM), N(NF), N(AF), N(SF) versus ALPHA
- (I) DN(NF), DN(PM), DN(AF), DN(RM), DN(YM), DN(SF) versus ALPHA
- (J) N(PM), N(RM), N(YM), N(NF), N(AF), N(SF) versus BETA

NOMENCLATURE General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m ² , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m ² , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m ³ , slugs/ft ³

Reference & C.G. Definitions

Ab		base area; m ² , ft ²
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
\bar{L}_{REF} c	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m ² , ft ²
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

NOMENCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>NAEAS SYMBOL</u>	<u>DEFINITION</u>
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CAU	axial-force coefficient; $\frac{\text{axial force}}{qS}$ (uncorrected)
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(P_b - P_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient; $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CLL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$

Stability-Axis System

C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CLL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D_f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
A_e		nozzle exit area, in ²
$C_{\ell j}$		RCS jet rolling moment coefficient, $(\bar{l}_{\ell})/(qSb)$
$C_{m j}$		RCS jet pitching moment coefficient, $(T_{\ell m})/(qS\bar{c})$
$C_{n j}$		RCS jet yawing moment coefficient, $(T_{\ell n})/(qSb)$
$C_{A j}$		RCS jet axial force coefficient, $(T)/(qS)$
$C_{N j}$		RCS jet normal force coefficient, $(T)/(qS)$
$C_{Y j}$		RCS jet side force coefficient, $(T)/(qS)$
e		nozzle expansion ratio
h		altitude, feet
k_f		model nozzle thrust calibration factor, lbs/psia
ℓ_{ℓ}		RCS nozzle rolling moment arm, in
ℓ_m		RCS nozzle pitching moment arm, in
ℓ_n		RCS nozzle yawing moment arm, in
ℓ_{orb}		Orbiter body length, in
LH		left hand side
\dot{m}_j		RCS jet mass flow rate, lbm/sec
M_j		RCS jet exit Mach number
N_{ℓ}	N(RM)	RCS roll jet amplification factor, $(\Delta C_{\ell})/(C_{\ell j})$

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
N_m	N(PM)	RCS pitch jet amplification factor, $(\Delta C_m)/(C_{mj})$
N_n	N(YM)	RCS yaw jet amplification factor, $(\Delta C_n)/(C_{nj})$
N_A	N(AF)	RCS axial force jet amplification factor, $(\Delta C_{A_u})/(C_{Aj})$
N_N	N(NF)	RCS normal force jet amplification factor, $(\Delta C_N)/(C_{Nj})$
N_Y	N(SF)	RCS side force jet amplification factor, $(\Delta C_Y)/(C_{Yj})$
P_c	PCRCS	model RCS nozzle plenum chamber pressure, psia
P_j		RCS jet exit pressure, psia
RCS		reaction control system
RH		right hand side
RT		product of RCS nozzle gas constant and temperature, (ft-lb)/lb
T		RCS thrust, lbs
T_c	TCRCS	RCS chamber temperature, °R
U		velocity, ft/sec
U_j		RCS jet velocity, ft/sec
X_0		Orbiter longitudinal station, in
Y_0		Orbiter lateral station, in
Z_0		Orbiter vertical station, in
ΔC_{ℓ}	DLTCBL	incremental rolling moment coefficient due to RCS jet interaction

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
ΔC_m	DLTCLM	incremental pitching moment coefficient due to RCS jet interaction
ΔC_n	DLTCYN	incremental yawing moment coefficient due to RCS jet interaction
ΔC_N	DLTCN	incremental normal force coefficient due to RCS jet interaction
ΔC_Y	DLTCY	incremental side force coefficient due to RCS jet interaction
ΔC_{A_u}	DLTCAU	incremental axial force coefficient due to RCS jet interaction (uncorrected for base pressure)
γ		jet gas specific heat ratio
Σk_i		sum of model nozzle thrust calibration factors for all nozzles installed on model during a given test run, lbs/psia
θ		RCS nozzle angle deg.
T/QA	T/QA	RCS thrust divided by freestream dynamic pressure times unit area
	T/QA-1	one jet RCS thrust divided by freestream dynamic pressure times unit area
ΔN_{ℓ}	DN(RM)	incremental RCS jet amplification factor - rolling moment
ΔN_m	DN(PM)	incremental RCS jet amplification factor - pitching moment
ΔN_n	DN(YM)	incremental RCS jet amplification factor - yawing moment
ΔN_N	DN(NF)	incremental RCS jet amplification factor - normal force

NOMENCLATURE (Concluded)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
ΔN_y	DN(SF)	incremental RCS jet amplification factor - side force
ΔN_A	DN(AF)	incremental RCS jet amplification factor - axial force
σ		one standard deviation from the mean
\bar{X}		computed mean
δ_{BF}	BDFLAP	Orbiter body flap surface deflection angle, positive deflection trailing edge down, degrees
δ_e	ELEVON	Orbiter elevon surface deflection angle, positive deflection trailing edge down, degrees
	NO. JET	number of RCS jets firing
	TEMP	wing temperature, degrees Fahrenheit

REMARKS

After being subjected to Mach 10 airflow at a dynamic pressure of 150 psf for a period of time, wind tunnel models tend to heat up to temperatures as high as 500°F. Therefore, in an effort to determine whether or not model heating could affect jet interaction measurements, the model was inserted into the tunnel and data was taken as the model heated up. At each data point the temperature of the model wing was recorded by hand. These temperatures can be found in Table VII. Both RCS jets-on and RCS jets-off data were taken as a function of wing temperature. Little effect was observed.

CONFIGURATIONS INVESTIGATED

Three kinds of model changes were required for this test: 1) body flap, 2) elevons, and 3) non-metric RCS nozzle blocks. Twenty two nozzle blocks were used in this test. Nozzles N43, N44, N47, N48, N49, N50, N51, N52, and N61 were used in tests OA85 and OA105. Nozzles N31, N32, N33, N34, N36, and N37 were used in test LA25. Nozzles N78, N79, N81, N82, N83, N84, and N85 were used in test OA82. Nozzle configurations are summarized in Table IV.

Two body flap configurations, in addition to the zero degree setting, were tested. The body flap deflections tested were 13.75° and -14.25° . Similarly, elevon deflections tested were 10° and -30° .

INSTRUMENTATION

The LaRC 0.75-inch six-component 2019A internal balance was used for this test program.

No model base or balance chamber pressures were measured during the test. The RCS supply pressure was set and monitored at the plenum chamber between the left hand and right hand RCS nozzle blocks.

TEST FACILITY DESCRIPTION

The Mach 10 nozzle of the Langley Continuous Flow Hypersonic Tunnel is designed to operate at stagnation pressures of 15 to 150 atmospheres at temperatures up to 1960° R. Air is preheated electrically by passing through a multi-tube heater. The nozzle has a 31-inch square test section which incorporates a moveable second minimum. Continuous operation is achieved by passing the air through a series of compressors. Additional information on this facility is given in NASA TM X-1130 entitled, "Characteristics of Major Active Wind Tunnels at the Langley Research Center", by William T. Schaefer, Jr.

DATA REDUCTION

Aerodynamic forces and moments were reduced to coefficient form using the following reference dimensions:

Reference Area:

$$\begin{aligned} S &= 0.269 \text{ ft}^2 (38.736 \text{ in}^2), \text{ model scale} \\ &= 2690.0 \text{ ft}^2, \text{ full scale} \end{aligned}$$

Reference Lengths:

$$\begin{aligned} \bar{c} &= 4.748 \text{ in. model scale} \\ &= 474.8 \text{ in. full scale} \\ b &= 9.367 \text{ in. model scale} \\ &= 936.7 \text{ in. full scale} \end{aligned}$$

The moments were reduced about a moment reference center located at:

$$\begin{aligned} \text{Orbiter station } 10.767 \text{ at } Y_o &= 0.00 \text{ and } Z_o = 3.75 \text{ model scale} \\ X_o &= 1076.7, Y_o = 0.0, \text{ and } Z_o = 375.0 \text{ full scale} \end{aligned}$$

Standard LRC data reduction techniques were employed for reducing the data to coefficient form.

Reduced coefficient data were used to determine RCS jet interaction amplification factors. Incremental coefficient data (ΔC_m , ΔC_x , ΔC_n , ΔC_y , and ΔC_{A_U}) were computed to provide effects of RCS jets. Amplification factors were computed for each plane of action:

$$\begin{aligned} N_m &= \frac{\Delta C_m}{C_{m_j}} = \frac{\frac{\Delta C_m}{(T_{L_m})}}{\frac{qS\bar{c}}{P_{C_{L_m}} \Sigma k_1}} = \frac{qS\bar{c}}{P_{C_{L_m}} \Sigma k_1} \Delta C_m \\ N_x &= \frac{\Delta C_x}{C_{x_j}} = \frac{\frac{\Delta C_x}{(T_{L_x})}}{\frac{qSb}{P_{C_{L_x}} \Sigma k_1}} = \frac{qSb}{P_{C_{L_x}} \Sigma k_1} \Delta C_x \end{aligned}$$

DATA REDUCTION (Continued)

$$N_n = \frac{\Delta C_n}{C_{nj}} = \frac{\frac{\Delta C_n}{T l_n}}{\left(\frac{T}{q S b}\right)} = \frac{q S b}{P_c \sum k_i} \Delta C_n$$

$$N_N = \frac{\Delta C_N}{C_{Nj}} = \frac{\frac{\Delta C_N}{T}}{\left(\frac{T}{q S}\right)} = \frac{q S}{P_c \sum k_i} \Delta C_N$$

$$N_Y = \frac{\Delta C_Y}{C_{Yj}} = \frac{\frac{\Delta C_Y}{T}}{\left(\frac{T}{q S}\right)} = \frac{q S}{P_c \sum k_i} \Delta C_Y$$

$$N_A = \frac{\Delta C_{Au}}{C_{Aj}} = \frac{\frac{\Delta C_{Au}}{T}}{\left(\frac{T}{q S}\right)} = \frac{q S}{P_c \sum k_i} \Delta C_{Au}$$

where

l_m = RCS pitch jet moment arm
= 4.523 in model scale

l_R = RCS roll jet moment arm
= 1.110 in model scale

l_n = RCS yaw jet moment arm
= 4.588 in model scale

$\sum k_i$ = sum of k_i 's for all nozzles firing in the same thrust plane, k_i given in Table VI

S, c, b = as given above

The resulting factors (N's) represent amplification of Orbiter aerodynamic forces caused by RCS jet interaction with the Orbiter flow field. They are normalized by RCS jet thrusts to allow easy use in control analysis.

The incremental RCS jet amplification factors due to a control surface deflection of amount "a" were computed as follows:

DATA REDUCTION (Concluded)

$$\Delta N_m = N_{m\delta=a} - N_{m\delta=0}$$

$$\Delta N_\ell = N_{\ell\delta=a} - N_{\ell\delta=0}$$

$$\Delta N_n = N_{n\delta=a} - N_{n\delta=0}$$

$$\Delta N_N = N_{N\delta=a} - N_{N\delta=0}$$

$$\Delta N_Y = N_{Y\delta=a} - N_{Y\delta=0}$$

$$\Delta N_A = N_{A\delta=a} - N_{A\delta=0}$$

These factors (ΔN 's) represent the incremental effect of control surface deflections on RCS jet interaction.

The incremental coefficient data do not include thrust forces since the model nozzles were non-metric. Increments and amplification factors were computed for each force and moment plane using data from each nozzle that was tested. This provides both direct (e.g. ΔC_m due to pitch jet) and cross-coupling (e.g. ΔC_m due to yaw jet) effects. Resulting data are presented in the data figures.

REFERENCES

1. DMS-DR-2195 (NASA-CR-134,442) "Results of Test OA82 in the NASA/LRC 31-Inch CFHT on an 0.010-Scale Model (32-0) of the Space Shuttle Configuration 3 to Determine RCS Jet Flow Field Interaction and to Investigate RT Real Gas Effects" by D. E. Thornton, January 1975.

TEST : MA22

DATE : July, 1975

TEST CONDITIONS

[illegible]

BALANCE UTILIZED: LaRC 2U19A

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	<u>70 lbs</u>	<u>0.35 lbs</u>	<u> </u>
SF	<u>25 lbs</u>	<u>0.125 lbs</u>	<u> </u>
AF	<u>15 lbs</u>	<u>0.075 lbs</u>	<u> </u>
PM	<u>70 in-lbs</u>	<u>0.35 in-lbs</u>	<u> </u>
RM	<u>15 in-lbs</u>	<u>0.075 in-lbs</u>	<u> </u>
YM	<u>25 in-lbs</u>	<u>0.125 in-lbs</u>	<u> </u>

COMMENTS:

TEST: CFHT 118 (MA-22)		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 7/11/75	
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS		TEST RUN NUMBERS		
		α	β	Jets	T/QA	Se	S_{eff}		10.3	3			
RJA003	Ø1N49	0	0°	2	95.0	0°	0		10.3	3			
RJA403					0.0				403	5			
RJA005					0.0				5	6			
RJA036					95.0				11	11			
RJA011	✓				95.0				411	12			
RJA411					0.0				12	13			
RJA012	Ø1N31	A			47.5				14	15			
13					0.0				16	17			
14					95.0				18	19			
15					190.0				20	21			
16	✓				47.5				22	23			
17	Ø1N34				95.0				23				
18					127.7								
19	✓				47.5								
20	Ø1N47				95.0								
21					127.7								
22	✓				47.5								
23	Ø1N43												

COEFFICIENTS		SCHEDULES	
α OF β	A, $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$	1	2
SCHEDULES	D, $\alpha = -10^\circ$, 0, 10° , 20° & 35°	3	4

TEST RUN NUMBERS	
1	25.76
2	67
3	61
4	55
5	49
6	43
7	37
8	31
9	25
10	19
11	13
12	7

TEST RUN NUMBERS	
1	25.76
2	67
3	61
4	55
5	49
6	43
7	37
8	31
9	25
10	19
11	13
12	7

* "3" DATASETS CONTAIN Q_{REF} , $PCRES$, T/QA , L/D as dependent variables.

$\alpha 1 = B_{19} C_1 E_{23} F_5 M_6 R_5 V_7 W_{107}$

TEST: CFHT 118 (MA-22)		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 7/11/75	
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS				
		α	β	Jets	T/QA	Se	Safe		10.3				
RJA024	Ø1N43	A	0°	2	0.0	0°	0°		10.3				
25					0.0				24				
26					95.0				25				
27	↓				127.7				26				
28	Ø1N79N78				47.5				27				
29					95.0				28				
30					190.0	✓			29				
31					0.0	-30°			30				
32					47.5				31				
33					95.0				32				
34					190.0	↓			33				
35					0.0	+10°			34				
36					47.5				35				
37					95.0				36				
38	↓			✓	190.0				37				
39	Ø1N78			1	190.0				38				
40	Ø1N85			2	190.0		✓		39				
41	↓	✓	✓	✓	0.0	✓	-14.25		40				

SCHEDULES		COEFFICIENTS									
α	β	$\Delta\alpha = -8^\circ$ to 10° ; $\Delta\beta = 2^\circ$ & $\Delta\alpha = 15^\circ$ to 35° ; $\Delta\beta = 5^\circ$									
		$\Delta\alpha = -10^\circ, 0, 10^\circ, 20^\circ$ & 35°									

TEST: CFHT 118 (MA-22)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 7/11/75

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS	
		α	β	Jets	T/R	$A-H$	δ	δ_{AE}	δ_{AE}	δ_{AE}	δ_{AE}	δ_{AE}	δ_{AE}		10-3	
RJAQ42	ØIN85	A	0°	2	190.0	+10°	-14.25								42	
43	ØIN78			1											43	
44	ØIN79N78			2											44	
45				T	0.0		+13.75								45	
46				↓	190.0										46	
47	ØIN78			1											47	
48	ØIN85			2	0.0										48	
49				T	190.0										49	
50					0.0		-14.25								50	
51				↓	47.5										51	
52	ØIN78			1											52	
53	ØIN79N78			2											53	
54	ØIN78			1	0.0	-30°	0°								54	
55				T	190.0										55	
56	ØIN85			2											56	
57	ØIN32			T	0.0	0°									57	
58					47.5										58	
59				↓	95.0										59	

75.75

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α OR β A, $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$
 SCHEDULES D, $\alpha = -10^\circ$, 0, 10° , 20° & 35°

10VAR 11 10VAR 12 NOV

TEST: CFHT 118 (MA-22)

DATE: 7/11/75

DATA SET/RUN NUMBER COLLATION SUMMARY

DATA SET IDENTIFIER	CONFIGURATION	SCHD.				PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS	
		α	β	Jets	$T/QA-H$	S_{AE}												
RJA060	$\emptyset 1N32$	A	0°	2	190.0	0°	0°									10.3		
61	$\emptyset 1N36$				47.5											60		
62					95.0											61		
63					127.7											62		
64	$\emptyset 1N48$				47.5											63		
65					95.0											64		
66					127.7											65		
67	$\emptyset 1N44$				47.5											66		
68					95.0											67		
69					127.7											68		
70	$\emptyset 1N78$			1	47.5											69		
71					95.0											70		
72					190.0											71		
73	$\emptyset 1N85$			2	47.5											72		
74					190.0											73		
75					95.0											74		
76	$\emptyset 1N33$				0.0											75		
77					47.5											76		
																77		

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TEST RUN NUMBERS

10.3

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α OR β

A, $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$

SCHEDULES

D, $\alpha = -10^\circ, 0, 10^\circ, 20^\circ$ & 35°

10V42 11

10V45 621

NDV

TEST: CFHT 118 (MA-22)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 7/11/75

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS	
		α	β	Jets	T	QA	1	5	2	0	0	0	0		10.3	78
RJA078	\emptyset IN33	A	0	2		95.0									79	
79	↓					190.0									80	
80	\emptyset IN37					47.5									81	
81	↓					95.0									82	
82	↓					127.7									83	
83	\emptyset IN61					47.5									84	
84	↓					95.0									85	
85	↓					127.7									86	
86	\emptyset IN84					0.0									87	
87	↓					47.5									88	
88	↓					95.0									89	
89	↓					127.7									90	
90	↓					0.0									91	
91	↓														92	
92	↓														93	
93	↓					47.5									94	
94	↓														95	
95	↓															

TEST RUN NUMBERS

7	13	19	25	31	37	43	49	55	61	67	73	79
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α OR β SCHEDULES A, $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$
D, $\alpha = -10^\circ$, 0, 10° , 20° & 35° .

ICVAR 11 ICVAR 21 NDV

TEST: CEHT 118 (MA-22)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 7/11/75

DATA SET IDENTIFIER	CONFIGURATION	SCHED.		PARAMETERS/VALUES										NO. TESTS		MATCH NUMBERS	
		α	β	Tests	T/RA	δ	ϵ	S_{RF}									
RJA095	$\emptyset 1N84$	0	0	2	95.0	0	0	0						0.3		96	
097		-3	0													97	
098		+3	0													98	
099		0	0		127.7											99	
100		-3	0													100	
101		+3	0													101	
102	$\emptyset 1N85N50$	0	0		0.0											102	
103		-3	0													103	
104		+3	0													104	
105		0	0		47.5											105	
106		-3	0													106	
107		+3	0													107	
108		0	0		95.0											108	
109		-3	0													109	
110		+3	0													110	
111		0	0		127.7											111	
112		-3	0													112	
✓ 113	✓	✓ +3	✓ 0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓ 113	

1	7	13	19	25	31	37	43	49	55	61	67	73
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COEFFICIENTS

A, $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$ D, $\alpha = -10^\circ$, 0, 10° , 20° & 35°

SCHEDULES

SCHEDULES

TEST: CENT 118 (MA-22)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 7/11/75

DATA SET IDENTIFIER		CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS											
			α	β	Jet	T/QA	I_{sc}	I_{sc}	I_{sc}									10.3									
RJA11		\emptyset N35N50	A	0°	2	0.0	0°	0°	0°									114									
	115					47.5												115									
	116					95.0												116									
	117	↗				127.7												117									
	118	\emptyset N35				47.5												118									
	119			-3°		↘												119									
	120			-3°														120									
	121			0°		95.0												121									
	122			-3°		↘												122									
	123			+3°														123									
	124			0°		190.0												124									
	125			-3°		↘												125									
	126	↗		+3°	↘													126									
	127	\emptyset N5F		0°	4	47.5												127									
	128			-3°		↘												128									
	129			-3°		↘												129									
	130			0°		95.0												130									
	↘ 131	↗		-3°	↘	↘												131									

7	13	19	25	31	37	43	49	55	61	67	73	75
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α or β A, $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$
SCHEDULES B, $\alpha = -10^\circ, 0, 10^\circ, 20^\circ$ & 35°

TEST: CEHT 118 (MA-22)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 7/1/75

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO OF ADJ	SCH NUMBERS
		α	β	jets	$T/QA-H$	δ	SRE		
RJA032	ØIN51	0	+3	4	95.0	0°	0°	10.3	
133			0°		127.7			132	
134			-3°					133	
135			+3°					134	
136			0°		0.0			135	
137			-3°					136	
138			+3°					137	
139		A	0°		47.5			138	
140					95.0			139	
141					127.7			140	
142	✓			✓	0.0			141	
143	ØEN78	0	✓	1				142	
144			-3°					143	
145			+3°					144	
146			0°		47.5			145	
147			-3°					146	
148			+3°					147	
✓ 149	✓	✓	0°	✓	95.0	✓	✓	148	
								149	

7	13	19	25	31	37	43	49	55	61	67	73
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α OR β A. $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$

SCHEDULES D. $\alpha = -10^\circ$, 0, 10° , 20° & 35° .

TEST: CFHT 118 (NA-22)

DATE: 7/11/75

DATA SET/RUN NUMBER COLLATION SUMMARY

DATA SET IDENTIFIER	CONFIGURATION	SCHED.		PARAMETERS/VALUES				MACH NUMBERS	TEST RUN NUMBERS
		α	β	lets	$T/QA-1$	δ	ϵ		
RJA168	01N82	A	0°	3	95.0	0°	0°	10.3	
169					190.0			163	
170					0.0			169	
171					190.0			170	
172								171	
173								172	
174					0.0			173	
175								174	
176								175	
177								176	
178								177	
179								178	
180					47.5			179	
181								180	
182								181	
183					95.0			182	
184								183	
185								184	
								185	

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α OR β

SCHEDULES

A, $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$

D, $\alpha = -10^\circ$, 0, 10° , 20° & 35°

TEST: CFHT 11C

22)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 7/11/75

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS	
		α	β	Jets	T/QA-11.5e	SRE			10.3	
RJA186	Ø1N79	0 0°		1	47.5	0°	0°		186	
187		3°							187	
188		+3°			↓				188	
189		0°			95.0				189	
190		-3°			↓				190	
191		+3°			↓				191	
192		0°			190.0				192	
193		-3°			↓				193	
194		+3°			↓				194	
195		A 0°			0.0				195	
196					47.5				196	
197				↓	95.0				197	
198	↓			1	190.0				198	
199	Ø1N49			2	47.5				199	
200				T	95.0				200	
201					190.0				201	
202		↓			0.0				202	
203	↓	D 1°		↓	47.5		↓		203	

TEST RUN NUMBERS

7	13	19	25	31	37	43	49	55	61	67	73	75	78
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α OR β A, $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$
 SCHEDULES D, $\alpha = -10^\circ$, 0, 10° , 20° & 35° .

IDVAR 11 IDVAR 123 NDV

TEST: CFHT 118 (MA-22)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 7/11/75

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES					NO. OF RUNS	TEST RUN NUMBERS									
		α	β	Jets	T	QA	1	Se		MACH NUMBERS									
RJA204	Ø1N49	0	-3	2	47.5	0°	0°	0°		10.3									
205			+3		↓					204									
206			0°		95.0					205									
207			-3°							206									
208			+3		↓					207									
209			0°		190.0					208									
210			-3°		↓					209									
211	↓		+3	↓	↓					210									
212	Ø1N83		0°	3	47.5					211									
213			-3°		↓					212									
214			+3		↓					213									
215			0°		0.0					214									
216			-3°							215									
217			+3							216									
218			0°							217									
219			-3°							218									
220			+3		↓					219									
✓ 221	✓	✓	0°	✓	95.0	✓	✓	✓	✓	220									
			0°							221									

COEFFICIENTS
 $\alpha, \alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$
 $\beta, \beta = -10^\circ$, 0° , 10° , 20° & 35°

α OR β
 SCHEDULES

IDVAR 11 IDVAR 21 NO.

TEST: CFHT 118 (MA-22)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 7/11/75

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS			
		α	β	Jets	T/Q	$A-1$	S_e		10.3			
RJ4222	01N83	0	-3	3		95.0	0°					
223		0	+3			↓	0°		222			
224		0	0			190.0			223			
225		0	-3						224			
226		0	+3			↓			225			
227		A	0			0.0			226			
228						190.0			227			
229						95.0			228			
230	↓			↓		47.5			229			
231	01N79N78	0	-3	2					230			
232		0	+3			↓			231			
233		0	0			95.0			232			
234		0	-3			↓			233			
235		0	+3			↓			234			
236		0	0			190.0			235			
237		0	-3						236			
238		0	+3			↓			237			
239	↓	0	0	↓					238			
		0	+3			↓			239			

TEST RUN NUMBERS

7 13 19 25 31 37 43 49 55 61 67 73.75

α OR β SCHEDULES $A, \alpha = -8^\circ$ to $10^\circ; \Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to $35^\circ; \Delta\alpha = 5^\circ$

SCHEDULES $D, \alpha = -10^\circ, 0, 10^\circ, 20^\circ$ & 35°

IDVAR (1) IDVAR (2) N3W

TEST: CFHT 118 (MA-22)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 7/11/75

DATA SET IDENTIFIER	CONFIGURATION	SCHED.		PARAMETERS/VALUES						NO. OF RUNS	TEST RUN NUMBERS				
		α	β	lets	$T/QA-1$	δe	S_{RF}				1C				
RJA240	$\emptyset 1N79N78$	A	0	2	0.0	0°	13.75				240				
241					47.5						241				
242					95.0						242				
243				↓	190.0						243				
244	$\emptyset 1N79$			1	0.0						244				
245				T	47.5						245				
246					95.0						246				
247				↓	190.0						247				
248	$\emptyset 1N85N50$			2	47.5						248				
249				T	95.0						249				
250					127.7						250				
251	$\emptyset 1N49$				47.5						251				
252					95.0						252				
253				↓	190.0						253				
254	$\emptyset 1N83$			3	47.5						254				
255				T	95.0						255				
256					190.0						256				
257				↓	0.0	↓	-14.25				257				

7 13 19 25 31 37 43 49 55 61 67 73 75 76

α OR β A, $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$
 SCHEDULES B, $\alpha = -10^\circ$, 0, 10° , 20° & 35° .

IDVAR 11 ICVAR 121 NCV

TEST: CFHT 118 (MA-22)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 7/11/75

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES					NO. OF RUNS	MACH NUMBERS	
		α	β	Jets	$T/QA-1$	δ	δ_{REF}				
RJA276	$\emptyset 1N79N78$	A	0°	2	47.5	-30°	-14.25			10.3	
277					0.0					276	
278					95.0					277	
279				↓	190.0					278	
280	$\emptyset 1N79$			1	47.5					279	
281				↓	95.0					280	
282				↓	190.0					281	
283	$\emptyset 1N85N50$			2	47.5					282	
284				↓	95.0					283	
285				↓	127.7					284	
286	$\emptyset 1N49$			2	47.5					285	
287				↓	95.0					286	
288				↓	190.0					287	
289				↓	0.0					288	
290	$\emptyset 1N83$			3	0.0					289	
291				↓	47.5					290	
292				↓	95.0					291	
293				↓	190.0					292	
										293	

7 13 19 25 31 37 43 49 55 61 67 75 79

 α OR β A, $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta K = 5^\circ$

SCHEDULES

D, $\alpha = -100^\circ$, 0, 10° , 20° & 35°

IDVAR 1) IDVAR 12) NEW

TEST: CFHT 116 (MA-22)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 7/11/75

DATA SET IDENTIFIER	CONFIGURATION	SCHED.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS	
		α	β	Jets	$T/QA-1$	δ	S_{AE}			
RJA294	$\emptyset 1N35$	A	0°	3	0.0	-30°	0°		10.3	
295					47.5				294	
296					95.0				295	
297				↓	190.0				296	
298	$\emptyset 1N49$			2	47.5				297	
299				T	95.0				298	
300				↓	190.0				299	
301	$\emptyset 1N79$			1	47.5				300	
302				T	95.0				301	
303				↓	190.0				302	
304	$\emptyset 1N84$			2	47.5				303	
305				T	95.0				304	
306					127.7				305	
307				↓	0.0				306	
308	$\emptyset 1N85$			2	0.0				307	
309				T	47.5				308	
310				↓	95.0				309	
311	$\emptyset 1N85N50$			2	47.5				310	
									311	

7 13 19 25 31 37 43 49 55 61 67 75.78

α OR β A, $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$
 SCHEDULES D, $\alpha = -10^\circ, 0, 10^\circ, 20^\circ$ & 35°

IQVAR (1) IQVAR (2) NDV

TEST: CFHT 118 (MA-22)		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 7/11/75	
DATA SET IDENTIFIER	CONFIGURATION	SCMD.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS				
		α	β	Jet	T/QA	δ	θ						
RJA312	\emptyset IN85N50	A	0°	2	95.0	-30°	0°		10.3				
313	↓			↓	127.7				312				
314	\emptyset IN51			4	47.5				313				
315	↓			T	95.0				314				
316					127.7				315				
317					0.0	↓			316				
318					0.0	+10°			317				
319					47.5				318				
320					95.0				319				
321	↓			↓	127.7				320				
322	\emptyset IN95			2	47.5				321				
323	↓			T	95.0				322				
324	↓			↓	0.0				323				
325	\emptyset IN85N50			2	0.0				324				
326	↓			T	47.5				325				
327	↓				95.0				326				
328	↓				127.7				327				
329	\emptyset IN84	↓	↓	↓	47.5	↓	↓		328				
									329				

COEFFICIENTS		SCHEDULES	
α OR β	A, $\alpha = -8^\circ$ to 10° ; $\Delta\alpha = 2^\circ$ & $\alpha = 15^\circ$ to 35° ; $\Delta\alpha = 5^\circ$	10	11
SCHEDULES	B, $\alpha = -10^\circ$, 0, 10° , 20° & 35°	10	11

TEST: CFHT 118 (MA-22)		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 7/11/75	
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS				
		α	β	Uets	$F/QA-1$	δ_c	δ_{RF}						
RJA330	Ø1N84	A	0°	2	95.0	+10°	0°		10.3				
331	↓			↓	127.7				330				
332	Ø1N79			1	47.5				331				
333	↓			T	95.0				332				
334	↓			↓	190.0				333				
335	Ø1N49			2	47.5				334				
336	↓			T	95.0				335				
337	↓			↓	190.0				336				
338	Ø1N83			3	47.5				337				
339	↓			T	95.0				338				
340	↓				190.0				339				
341	↓				0.0				340				
342	↓				0.0		13.75		341				
343	↓				47.5				342				
344	↓				0.0				343				
345	↓			↓	95.0				344				
346	↓			↓	190.0				345				
347	Ø1N49	↓	↓	2	47.5	↓	↓		346				
									347				

SCHEDULES		COEFFICIENTS									
α	β	δ_c to 10° ; $\delta_c = 2^\circ$ to 35° ; $\delta_c = 5^\circ$									
		$\delta_c = -10^\circ, 0, 10^\circ, 20^\circ$ to 35°									

TABLE III. - MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B19

GENERAL DESCRIPTION : Fuselage Configuration 3. per Rockwell

Lines VL70-000139B

NOTE: Identical to B19 except forebody.

MODEL SCALE: 0.010

DRAWING NUMBER: VL70-000139B

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length , In.	<u>1290.3</u>	<u>12.903</u>
Max Width, In.	<u>267.6</u>	<u>2.676</u>
Max Depth , In.	<u>244.5</u>	<u>2.445</u>
Fineness Ratio	<u>4.82175</u>	<u>4.82175</u>
Area- Ft ₂	<u> </u>	<u> </u>
Max. Cross-Sectional	<u>386.67</u>	<u>0.0387</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III (CONT'D)

MODEL COMPONENT : BODY FLAP - F₂

GENERAL DESCRIPTION : Configuration 3 per Rockwell Line V170-000139.

MODEL SCALE: 0.010

DRAWING NUMBER : V170-000139

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length, In.	<u>84.70</u>	<u>0.847</u>
Max Width, In.	<u>267.6</u>	<u>2.676</u>
Max Depth	<u> </u>	<u> </u>
Fineness Ratio	<u> </u>	<u> </u>
Area - Ft ³	<u> </u>	<u> </u>
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u>142.5</u>	<u>0.0143</u>
Wetted	<u> </u>	<u> </u>
Base	<u>38.0958</u>	<u>0.0038</u>

TABLE III (CONT'D)

MODEL COMPONENT : CANOPY - C7

GENERAL DESCRIPTION : Configuration 3 per Rockwell Lines VL70-000139

MODEL SCALE: 0.010

DRAWING NUMBER: VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ($X_0=433$ to $X_0=578$), In.	<u>145.0</u>	<u>1.450</u>
Max Width	<u> </u>	<u> </u>
Max Depth	<u> </u>	<u> </u>
Fineness Ratio	<u> </u>	<u> </u>
Area	<u> </u>	<u> </u>
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III (CONT'D)

MODEL COMPONENT: ELEVON - EggGENERAL DESCRIPTION: Configuration 3 per W₁₀₇ Rockwell Lines Drawing
VL70-000139B. Data for (1) or (2) sides.MODEL SCALE: 0.010DRAWING NUMBER: VL70-000139B

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft ²	<u>205.52</u>	<u>0.0206</u>
Span (equivalent), In.	<u>353.34</u>	<u>3.533</u>
Inb'd equivalent chord, In.	<u>114.78</u>	<u>1.148</u>
Outb'd equivalent chord, In.	<u>55.00</u>	<u>0.550</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.208</u>	<u>0.208</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Trailing Edge	<u>- 10.24</u>	<u>-10.24</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to Hinge line)-Ft ³ (Product of Area and c)	<u>1548.07</u>	<u>0.00155</u>

TABLE III (CONT'D)

MODEL COMPONENT: MPS NOZZLES - N₃₉

GENERAL DESCRIPTION: Configuration 3A MPS nozzles.

MODEL SCALE: 0.010

DRAWING NUMBER: _____

DIMENSIONS:

FULL SCALE

MODEL SCALE

MACH NO.

Length - In.

Gimbal Point to Exit Plane

Throat to Exit Plane

Diameter - In.

Exit

Throat

Inlet

Area - ft²

Exit

Throat

Gimbal Point (Station) - In.

Upper Nozzle

X

Y

Z

NOT USED

Lower Nozzles

X

Y

Z

Null Position - Deg.

Upper Nozzle

Pitch

Yaw

NOT USED

Lower Nozzle

Pitch

Yaw

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TABLE III. (CONT'D)

MODEL COMPONENT: NOZZLE - N31

GENERAL DESCRIPTION: RCS nozzle providing left-hand pitch-down control.

MODEL SCALE: .010

DRAWING NO.:

DIMENSIONS:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	
Cant angle - deg.	
Aft	12
Outboard	20
Diameter - In.	
Exit	.0990
Throat	.0921
Area - In. ²	
Exit	.007698
Throat	.006662
Area ratio	1.15
No. of nozzles	2

TABLE III. (CONT'D)

MODEL COMPONENT: NOZZLE - N32

GENERAL DESCRIPTION: RCS nozzle providing right-hand pitch-up control.

MODEL SCALE: .010

DRAWING NO.:

DIMENSIONS:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	
Cant angle - deg.	
Aft	0
Outboard	0
Diameter - in.	
Exit	.0990
Throat	.0921
Area - in. ²	
Exit	.007698
Throat	.006662
Area ratio	1.15
No. of nozzles	2

TABLE III. (CONT'D)

MODEL COMPONENT: NOZZLE - N33

GENERAL DESCRIPTION: RCS nozzle to provide left-hand yaw control.

MODEL SCALE: .010

DRAWING NO.:

DIMENSIONS:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	
Cant angle - deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	.0990
Throat	.0921
Area - In. ²	
Exit	.007698
Throat	.006662
Area ratio	1.15
No. of nozzles	2

TABLE III. (CONT'D)

MODEL COMPONENT: NOZZLE - N34

GENERAL DESCRIPTION: RCS nozzle to provide left-hand pitch-down control.

MODEL SCALE: .010

DRAWING NO.:

DIMENSIONS:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	
Cant angle - deg.	
Aft	12
Outboard	20
Diameter - in.	
Exit	.0878
Throat	.0520
Area - in. ²	
Exit	.006055
Throat	.002124
Area ratio	2.85
No. of nozzles	2

TABLE III. (CONT'D)

MODEL COMPONENT: NOZZLE - N36

GENERAL DESCRIPTION: RCS nozzle to provide left-hand pitch-up control

MODEL SCALE: .010

DRAWING NO.:

DIMENSION:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	
Cant angle - deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	.0878
Throat	.0520
Area - In. ²	
Exit	.006055
Throat	.002124
Area ratio	2.85
No. of nozzles	2

TABLE III. (CONT'D)

MODEL COMPONENT: NOZZLE - N37

GENERAL DESCRIPTION: RCS nozzle to provide left-hand yaw control.

MODEL SCALE: .010

DRAWING NO.:

DIMENSIONS:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	
Cant angle - deg.	
Aft	0
Outboard	0
Diameter - in.	
Exit	.0878
Throat	.0620
Area - in. ²	
Exit	.006055
Throat	.002124
Area ratio	2.85
No. of nozzles	2

TABLE III. (CONT'D)

MODEL COMPONENT: NOZZLE - N43

GENERAL DESCRIPTION: RCS nozzle to provide left-hand pitch-down control to simulate entry.

MODEL SCALE: .010

DRAWING NO.:

DIMENSIONS:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	5
Cant angle - deg.	
Aft	12
Outboard	20
Diameter - In.	
Exit	.129
Throat	.0465
Area - In. ²	
Exit	.013070
Throat	.001698
Area ratio	7.70
No. of nozzles	2

TABLE III. (CONT'D)

MODEL COMPONENT: NOZZLE - N44

GENERAL DESCRIPTION: RCS nozzle to provide right-hand pitch-up control to simulate entry.

MODEL SCALE: .010

DRAWING NO.:

DIMENSIONS:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	5
Cant angle - deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	.129
Throat	.0465
Area - In. ²	
Exit	.013070
Throat	.001898
Area ratio	7.7
No. of nozzles	2

TABLE III. (CONT'D)

MODEL COMPONENT: NOZZLE - N47

GENERAL DESCRIPTION: RCS nozzle to provide left-hand pitch-down control to simulate entry.

MODEL SCALE: .010

DRAWING NO.:

DIMENSIONS:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	20
Cant angle - deg.	
Aft	12
Outboard	20
Diameter - In.	
Exit	.117
Throat	.0465
Area - In. ²	
Exit	.010751
Throat	.001698
Area ratio	6.33
No. of nozzles	2

TABLE III. (CONT'D)

MODEL COMPONENT: NOZZLE - N48

GENERAL DESCRIPTION: RCS nozzle to provide right-hand pitch-up control to simulate entry.

MODEL SCALE: .010

DRAWING NO.:

DIMENSIONS:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	20
Cant angle - deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	.117
Throat	.0465
Area - In. ²	
Exit	.010751
Throat	.001698
Area ratio	6.33
No. of nozzles	2

TABLE III (CONT'D)

MODEL COMPONENT: NOZZLE - N49

GENERAL DESCRIPTION: RCS Nozzle providing left-hand pitch-down control to simulate return to launch site (RTL3)

MODEL SCALE: 0.010

DRAWING NO.: SS-A01160-19

DIMENSIONS:	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	20
Cant Angle - deg.	
Aft	12
Outboard	20
Diameter - In.	
Exit	0.141
Throat	0.0670
Area - In. ²	
Exit	0.015614
Throat	0.003525
Area Ratio	4.430
No. of nozzles	2

TABLE III (CONT'D)

MODEL COMPONENT: NOZZLE - N₅₀

GENERAL DESCRIPTION: RCS nozzle providing righthand pitch-down control to simulate return to launch site (RTLS).

MODEL SCALE: 0.010

DRAWING NO.: 35-A01160-20

DIMENSIONS:

MODEL SCALE

Flight dynamic pressure simulation - PSF	20
Cant angle - deg.	
Aft	12
Outboard	20
Diameter - In.	0.141
Exit	0.151
Throat	0.0670
Area - In. ²	
Exit	0.015614
Throat	0.003525
Area ratio	4.436
No. of nozzles	2

TABLE III (CONT'D)

MODEL COMPONENT: NOZZLE - N51

GENERAL DESCRIPTION: ROS nozzle providing left-hand yaw control to simulate return to launch site (RTL).

MODEL SCALE: 0.010

DRAWING NO.: SS-A01160-11

DIMENSIONS:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - P _{SP}	20
Cant angle - Deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	0.141
Throat	0.0670
Area - in. ²	
Exit	0.015614
Throat	0.003525
Area ratio	4.430
No. of nozzles	4

TABLE III (CONT'D)

MODEL COMPONENT: NOZZLE - N₅₂

GENERAL DESCRIPTION: RCS nozzle providing right-hand pitch-up control to simulate return to launch site (RTLS).

MODEL SCALE: 0.010

DRAWING NO.: 33-A01160-12

DIMENSIONS:	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	20
Cant angle - deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	0.141
Throat	0.0670
Area - In. ²	
Exit	0.015614
Throat	0.003525
Area ratio	4.430
No. of nozzles	2

TABLE III. (CONT'D)

MODEL COMPONENT: NOZZLE - N61

GENERAL DESCRIPTION: RCS nozzle to provide left-hand yaw control to simulate entry.

MODEL SCALE: .010

DRAWING NO.:

DIMENSIONS:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	5
Cant angle - deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	.129
Throat	.0465
Area - In. ²	
Exit	.013070
Throat	.001698
Area ratio	7.70
No. of nozzles	2

TABLE III (CONT'D)

MODEL COMPONENT: NOZZLE - N₇₈

GENERAL DESCRIPTION: RCS nozzle providing right-hand up-firing control to simulate return to launch site (RTLS).

MODEL SCALE: 0.010

DRAWING NO.: SS-A01160

DIMENSIONS:

MODEL SCALE:

Flight dynamic pressure simulation - PSF	20
Cant angle - deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	0.141
Throat	0.0670
Area - In. ²	
Exit	0.015614
Throat	0.003525
Area ratio	4.430
No. of nozzles	1

TABLE III (CONT'D)

MODEL COMPONENT: NOZZLE - N79

GENERAL DESCRIPTION: RCS nozzle providing left-hand pitch-down control to simulate return to launch site (RTL3).

MODEL SCALE: 0.010

DRAWING NO.:

DIMENSIONS:

	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	20
Cant angle - deg.	
Aft	12
Outboard	20
Diameter - In.	
Exit	0.141
Throat	0.0670
Area - In. ²	
Exit	0.015615
Throat	0.003525
Area ratio	4.430
No. of nozzles	1

TABLE III (CONT'D)

MODEL COMPONENT: NOZZLE - N81

GENERAL DESCRIPTION: RCS nozzle providing left-hand pitch-up control to simulate return to launch site (RTLIS).

MODEL SCALE: 0.010

DRAWING NO.:

DIMENSIONS:

MODEL SCALE

Flight dynamic pressure simulation - PSF	20
Cant angle - Deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	0.141
Throat	0.0670
Area - In. ²	
Exit	0.015614
Throat	0.003525
Area ratio	4.430
No. of nozzles	2

TABLE III (CONT'D)

MODEL COMPONENT: NOZZLE - N82

MODEL DESCRIPTION: KC3 nozzle providing right-hand pitch-up control to simulate return to launch site (RTLS).

MODEL SCALE: 0.010

DIMENSIONS:

MODEL SCALE

Flight dynamic pressure simulation - PSF	20
Cant angle - deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	0.141
Throat	0.0670
Area - In. ²	
Exit	0.015614
Throat	0.003525
Area ratio	4.430
No. of nozzles	3

TABLE III (CONT'D)

MODEL COMPONENT: NOZZLE - N₈₃

GENERAL DESCRIPTION: RCS nozzle providing left-hand pitch-down control to simulate return to launch site (RTLJ).

MODEL SCALE: 0.010

DRAWING NO.:

DIMENSIONS:

MODEL SCALE

Flight dynamic pressure simulation - PSF	20
Cant angle - deg.	
Aft	12
Outboard	20
Diameter - in.	
Exit	0.141
Throat	0.0570
Area - in. ²	
Exit	0.015614
Throat	0.003525
Area ratio	4.430
No. of nozzles	3

TABLE III (CONT'D)

MODEL COMPONENT: NOZZLE - N84

GENERAL DESCRIPTION: RCS nozzle providing right-hand pitch-up control to simulate return to launch site (RTL3).

MODEL SCALE: 0.010

DRAWING NO.:

DIMENSIONS:

MODEL SCALE

Flight dynamic pressure simulation - PSF	20
Cant angle - deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	0.141
Throat	0.0670
Area - In. ²	
Exit	0.015614
Throat	0.003525
Area ratio	4.430
No. of nozzles	2

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TABLE III (CONT'D)

MODEL COMPONENT: NOZZLE - Ng5

GENERAL DESCRIPTION: RCS nozzle providing left-hand side-firing to simulate return to launch site (RTLS).

MODEL SCALE: 0.010

DIMENSIONS:	<u>MODEL SCALE</u>
Flight dynamic pressure simulation - PSF	20
Cant angle - deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	0.141
Throat	0.0670
Area - In. ²	
Exit	0.015614
Throat	0.003525
Area ratio	4.430
No. of nozzles	2

FILE III (CONT'D)

MODEL COMPONENT : OM3 POD - M₆

GENERAL DESCRIPTION : Basic configuration 3A OM3 pods with non-
metric RCS engine housing and nozzles. Same geometry as M₄

MODEL SCALE: 0.010

DRAWING NUMBER: VL70-000139B

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length	<u>346.0</u>	<u>3.460</u>
Max Width	<u>108.0</u>	<u>1.080</u>
Max Depth	<u>113.0</u>	<u>1.130</u>
Fineness Ratio	<u> </u>	<u> </u>
Area	<u> </u>	<u> </u>
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>
Station of aft end of RCS nozzle block	1560	15.60

TABLE III (CONT'D)

MODEL COMPONENT: RUDDER - R_EGENERAL DESCRIPTION: Configuration 140C orbiter rudder (identical to configuration 140A/B rudder)MODEL SCALE: 0.010DRAWING NUMBER: VL70-000146B, -000095

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft ²	<u>100.15</u>	<u>0.0100</u>
Span (equivalent), In.	<u>201.00</u>	<u>2.010</u>
Inb'd equivalent chord, In.	<u>91.585</u>	<u>0.916</u>
Outb'd equivalent chord, In.	<u>50.833</u>	<u>0.508</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge		
Tailing Edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
(Product of Area & \bar{c})		
Area Moment (Normal to hinge line) Ft ³	<u>610.92</u>	<u>0.000610</u>
Mean Aerodynamic Chord, In.	<u>73.2</u>	<u>0.732</u>

TABLE III (CONT'D)

MODEL COMPONENT: VERTICAL - V₇GENERAL DESCRIPTION: Centerline vertical tail, doublewedge airfoil
with rounded leading edge.NOTE: Same as V₅, but with manipulator housing removed.MODEL SCALE: 0.010DRAWING NUMBER: VL70-000139DIMENSIONS: FULL SCALE MODEL SCALE

TOTAL DATA

Area (Theo) - Ft ²		
Planform	<u>425.92</u>	<u>0.0426</u>
Span (Theo) - In.	<u>315.72</u>	<u>3.157</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep-Back Angles, Degrees.		
Leading Edge	<u>45.00</u>	<u>45.000</u>
Trailing Edge	<u>26.249</u>	<u>26.249</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>2.685</u>
Tip (Theo) WP	<u>108.47</u>	<u>1.085</u>
MAC	<u>199.81</u>	<u>1.998</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>14.635</u>
W.P. of .25 MAC	<u>635.522</u>	<u>6.355</u>
B.L. of .25 MAC	<u>0.00</u>	<u>0.00</u>
Airfoil Section		
Leading Wedge Angle - Deg.	<u>10.00</u>	<u>10.00</u>
Trailing Wedge Angle - Deg.	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius	<u>2.0</u>	<u>0.020</u>
Void Area	<u>13.17</u>	<u>0.0013</u>
Blanketed Area	<u>0.00</u>	<u>0.00</u>

*REV. 11/9/74

TABLE III. - MODEL DIMENSIONAL DATA - Concluded.

MODEL COMPONENT: WING-W₁₀₇

GENERAL DESCRIPTION: Configuration 1 per Rockwell Lines VL70-000139H

NOTE: Same as W₁₀₇ except cuff, airfoil and incidence angle.

TEST NO.	OWG. NO.	VL70-000139H
DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo.) Ft^2	2690.00	26.900
Planform	936.68	9.367
Span (Theo) In.	2.265	2.265
Aspect Ratio	1.177	1.177
Rate of Taper	0.200	0.200
Taper Ratio	3.500	3.500
Dihedral Angle, degrees	0.500	0.500
Incidence Angle, degrees	+3.000	+3.000
Aerodynamic Twist, degrees		
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	-10.24	-10.24
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo) B.P.O.O.	689.24	6.892
Tip, (Theo) B.P.	137.85	1.379
MAC	474.81	4.748
Fus. Sta. of .25 MAC	1136.89	11.369
(Z ₀)* W.P. of .25 MAC	290.857	2.909
(Y ₀)* B.L. of .25 MAC	182.13	1.821
EXPOSED DATA		
Area (Theo) Ft^2	1752.29	17.523
Span, (Theo) In. BP108	720.68	7.207
Aspect Ratio	2.058	2.058
Taper Ratio	0.245	0.245
Chords		
Root BP108	565.40	5.624
Tip 1.00 $\frac{b}{2}$	137.85	1.379
MAC	393.03	3.930
Fus. Sta. of .25 MAC	1185.31	11.853
*W.P. of .25 MAC	293.653	2.937
B.L. of .25 MAC	251.76	2.518
Airfoil Section (Rockwell Mod NASA)		
XXXX-64		
Root $\frac{b}{2}$	0.100	0.100
Tip $\frac{b}{2}$	0.120	0.120
Data for (1) of (2) Sides		
Leading Edge Cuff 2	118.333	1.183
Planform Area Ft^2	500.00	5.000
Leading Edge Intersects Fus M. L. @ Sta	1083.4	10.834
Leading Edge Intersects Wing @ Sta		

TABLE IV. - SUMMARY OF NOZZLE NOMENCLATURE

Nozzle	Throat Dia.	Exit Dia.	Lip Angle	Type	No. of Jets	Cant
N31	0.0927	0.0990	5°	LH down firing	2	20°OUTBD, 12°AFT
N32	0.0927	0.6990	5°	RH up firing	2	None
N33	0.0927	0.0990	5°	LH side firing	2	None
N34	0.0520	0.0878	9°	LH down firing	2	20°OUTBD, 12°AFT
N36	0.0520	0.0878	9°	RH up firing	2	None
N37	0.0520	0.0878	9°	LH side firing	2	None
N43	0.0465	0.129	31°45'	LH down firing	2	20°OUTBD, 12°AFT
N44	0.0465	0.129	31°45'	RH up firing	2	None
N47	0.0465	0.117	34°30'	LH down firing	2	20°OUTBD, 12°AFT
N48	0.0465	0.117	34°30'	RH up firing	2	None
N49	0.0670	0.1413	34°15'	LH down firing	2	20°OUTBD, 12°AFT
N50	0.0670	0.1413	34°15'	RH down firing	2	20°OUTBD, 12°AFT
N51	0.0670	0.1413	34°15'	LH side firing	4	None
N52	0.0670	0.1413	34°15'	RH up firing	2	None
N61	0.0465	0.129	31°45'	LH side firing	2	None
N78	0.0670	0.1413	34°15'	RH up firing	1	None

TABLE IV. - Concluded

Nozzle	Throat Dia.	Exit Dia.	Lip Angle	Type	No. of Jets	Cart
N79	0.0670	0.1413	34°15'	LH down firing	1	20°OUTBD, 12°AFT
N81	0.0670	0.1413	34°15'	LH up firing	2	None
N82	0.0670	0.1413	34°15'	RH up firing	3	None
N83	0.0670	0.1413	34°15'	LH down firing	3	20°OUTBD, 12°AFT
N84	0.0670	0.1413	34°15'	Combination-RH up firing & side firing	2 up 2 side	None
N85	0.0670	0.1413	34°15'	LH side firing	2	None

TABLE V. - SIMULATION PARAMETERS

q_{∞} = 20 PSF RTLS abort separation simulation

A. <u>Free Stream Conditions</u>		<u>Free Flight</u>	<u>Wind Tunnel</u>
Dynamic Pressure	q	20 psf	150 psf
Mach number	M	7	10.3
*Reynolds No.	Re/L	1.23×10^6	1×10^6
Altitude	h	200,000 ft	--
B. <u>RCS Jet Characteristics</u>		<u>Prototype</u>	<u>Model</u>
Chamber Pressure	P_c	150 psia	140 psi
Chamber Temp.	T_c	5450 °R	520 °R
Specific Heat Ratio	γ	1.232	1.4
Expansion Ratio	e	20	4.792
Nozzle Angle	θ	9°	34°15'
Exit Area	A_e	72.382 in ²	0.01567 in ²
Exit Mach No.	M_j	3.93	3.13
Exit Pressure	P_j	0.643 psi	3.136 psi
Mass Flow Rate	\dot{m}_j	3.287 lbm/sec	0.01067 lbm/sec
Momentum	$\dot{M}_j U_j$	903.46 lbf	0.675 lbs.
Thrust	T_j	950 lbf	.712 lbs.
C. <u>Jet to Free Stream Parameters ($S_{ref} = 1 \text{ ft}^2$)</u>		<u>Full Scale Free Flight</u>	<u>Simulation</u>
Thrust Ratio	$\frac{T}{q S_{ref}}$	47.5	47.5 (Matched)
Mass Flow Ratio	$\frac{\dot{m}_j}{\rho U S_{ref}}$	26.4	50.6
Momentum Ratio	$\frac{\dot{M}_j U_j}{q S_{ref}}$	45.17	45 (Matched)
Pressure Ratio	$\frac{P_j}{P}$	224	224 (Matched)
Plume Shape		Boundary up to Impact station	(Roughly Matched)

* Reynolds Number based on Orbiter length $L_{orb} = 107.5 \text{ ft}$.

TABLE VI. - THRUST COEFFICIENT FACTORS

<u>Jet</u>	<u>Gas</u>	$k_1 = T/P_c$ <u>lbs/psia</u>
N31	Air	0.00692
N32	Air	0.00738
N33	Air	0.00792
N34	Air	0.00266
N36	Air	0.00261
N37	Air	0.00300
N43	Air	0.00250
N44	Air	0.00245
N47	Air	0.00237
N48	Air	0.00237
N49	Air	0.00920
N50	Air	0.00824
N51	Air	0.01620
N52	Air	0.00920
N61	Air	0.00221
N78	Air	0.00450
N79	Air	0.00460
N81	Air	0.00900
N82	Air	0.01356
N83	Air	0.01356
N84	Air	0.00886
N85	Air	0.00904

TABLE VII. - WING TEMPERATURES *

Data Point	$\alpha = 0$	$\alpha = -10$	$\alpha = 20$	$\alpha = 35$	Jet
1	221	295	181	189	ON
2	290	326	208	219	OFF
3	308	344	235	246	ON
4	327	362	264	273	OFF
5	342	375	289	291	ON
6	356	388	313	314	OFF
7	368	398	329	333	ON
8	375	408	343	353	OFF
9	386	417	359	369	ON
10	396	425	374	386	OFF
11	404	434	387	406	ON
12	412	443	397	417	OFF
13	418	450	405	429	ON
14	425	459	414	442	OFF
15	432	465	423	451	ON
16	438	472	431	463	OFF

TABLE VII. - Concluded.

<u>Data Point</u>	<u>$\alpha = 0$</u>	<u>$\alpha = -10$</u>	<u>$\alpha = 20$</u>	<u>$\alpha = 35$</u>	<u>Jet</u>
17	444	480	439	471	ON
18	450	488	446	479	OFF
19	454	495	451	489	ON
20	460	501	457	497	OFF
21	464		462	504	ON
22	469		467		OFF
23	473				ON
24	478				OFF

* degrees Fahrenheit

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

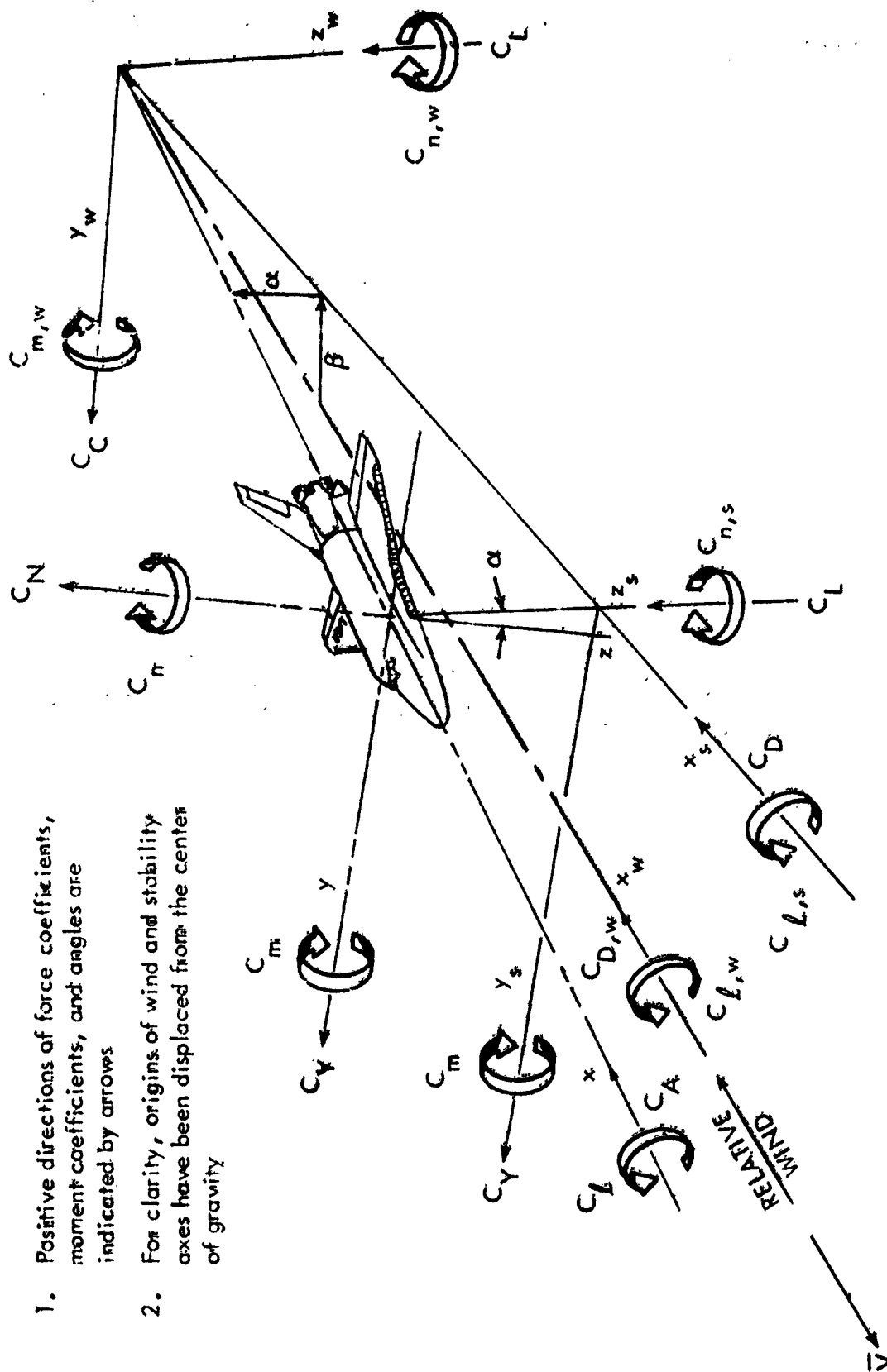
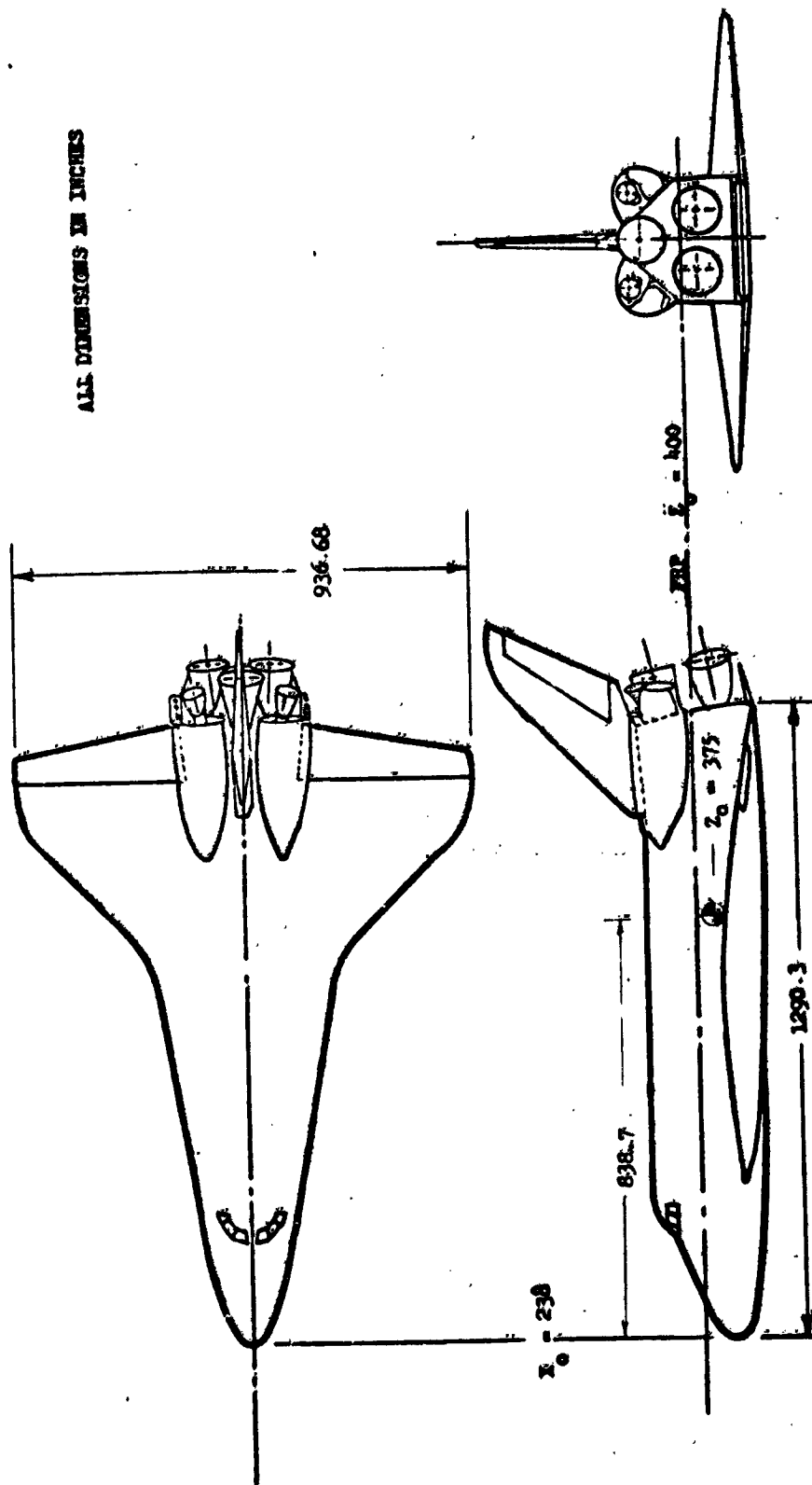
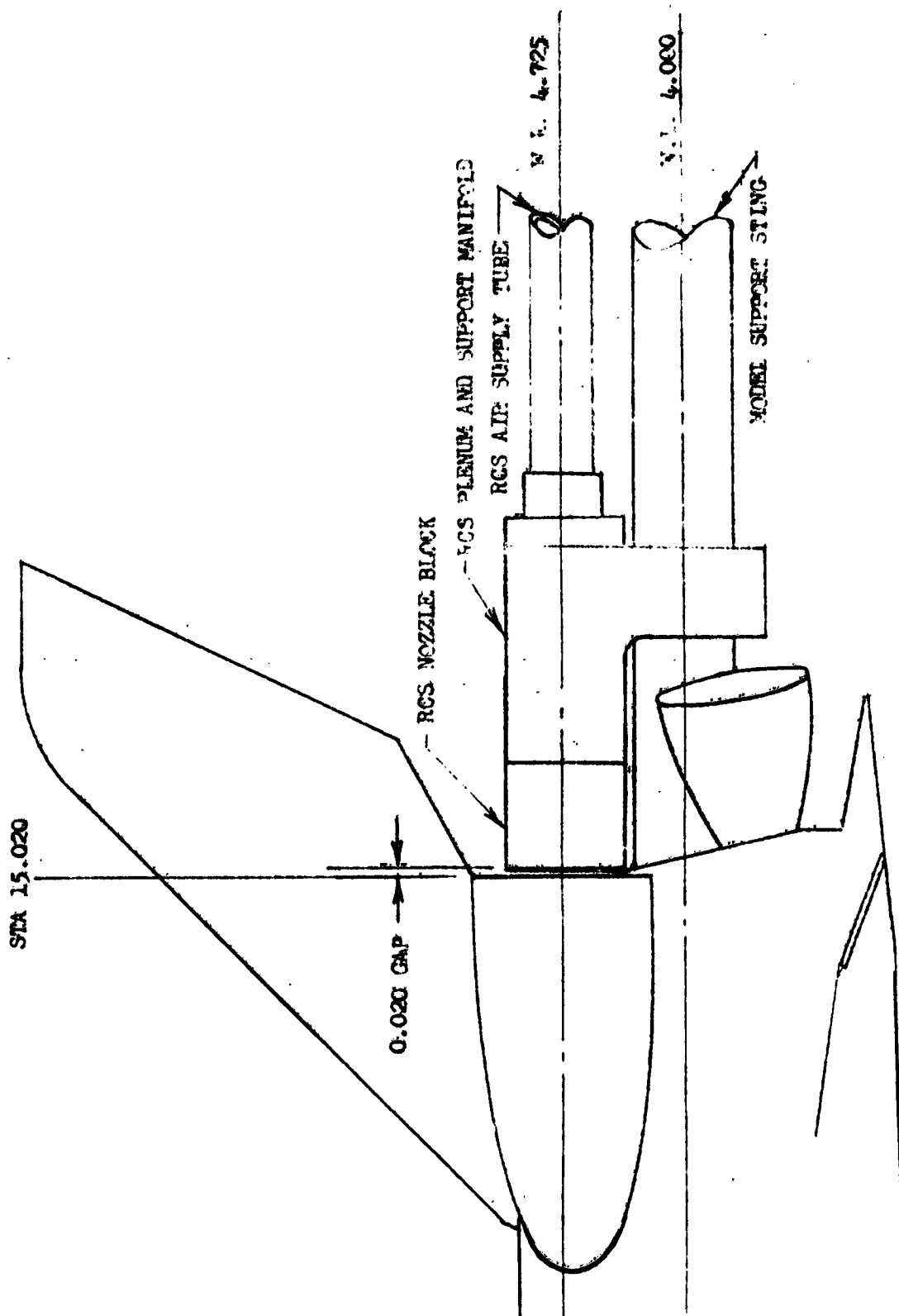


Figure 1. - Axis systems.



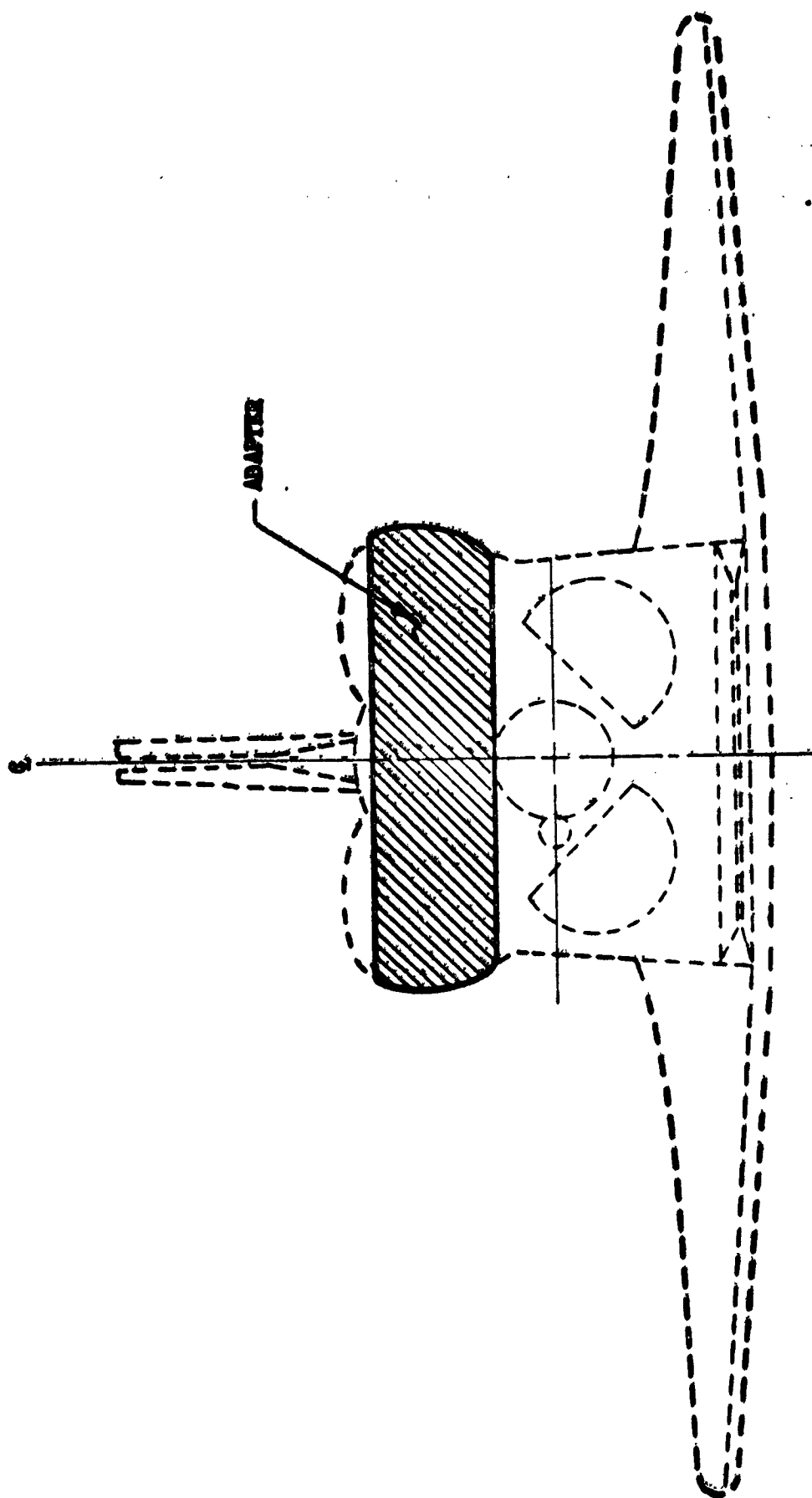
a. Orbiter Configuration

Figure 2. - Model sketches.



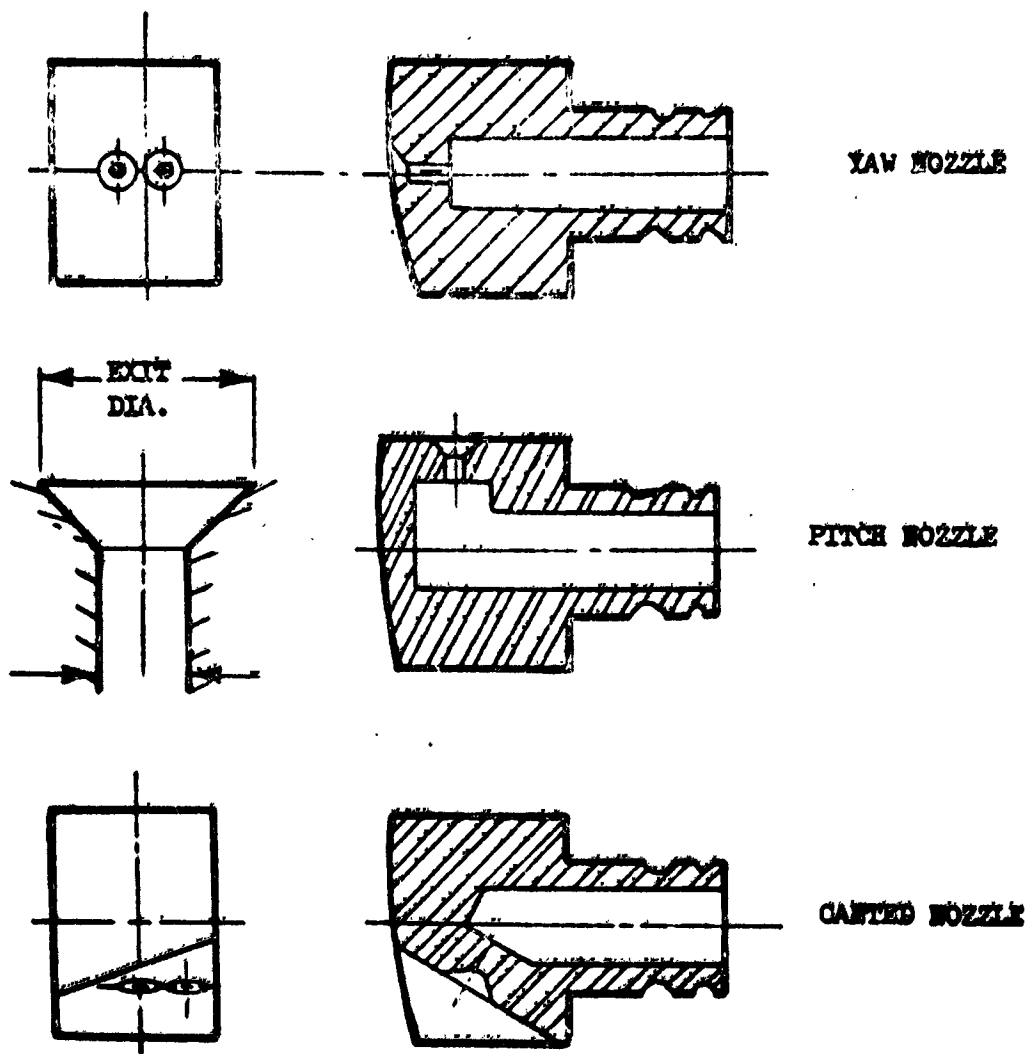
b. RCS Plenum Nozzle Block Installation

Figure 2. - Continued.



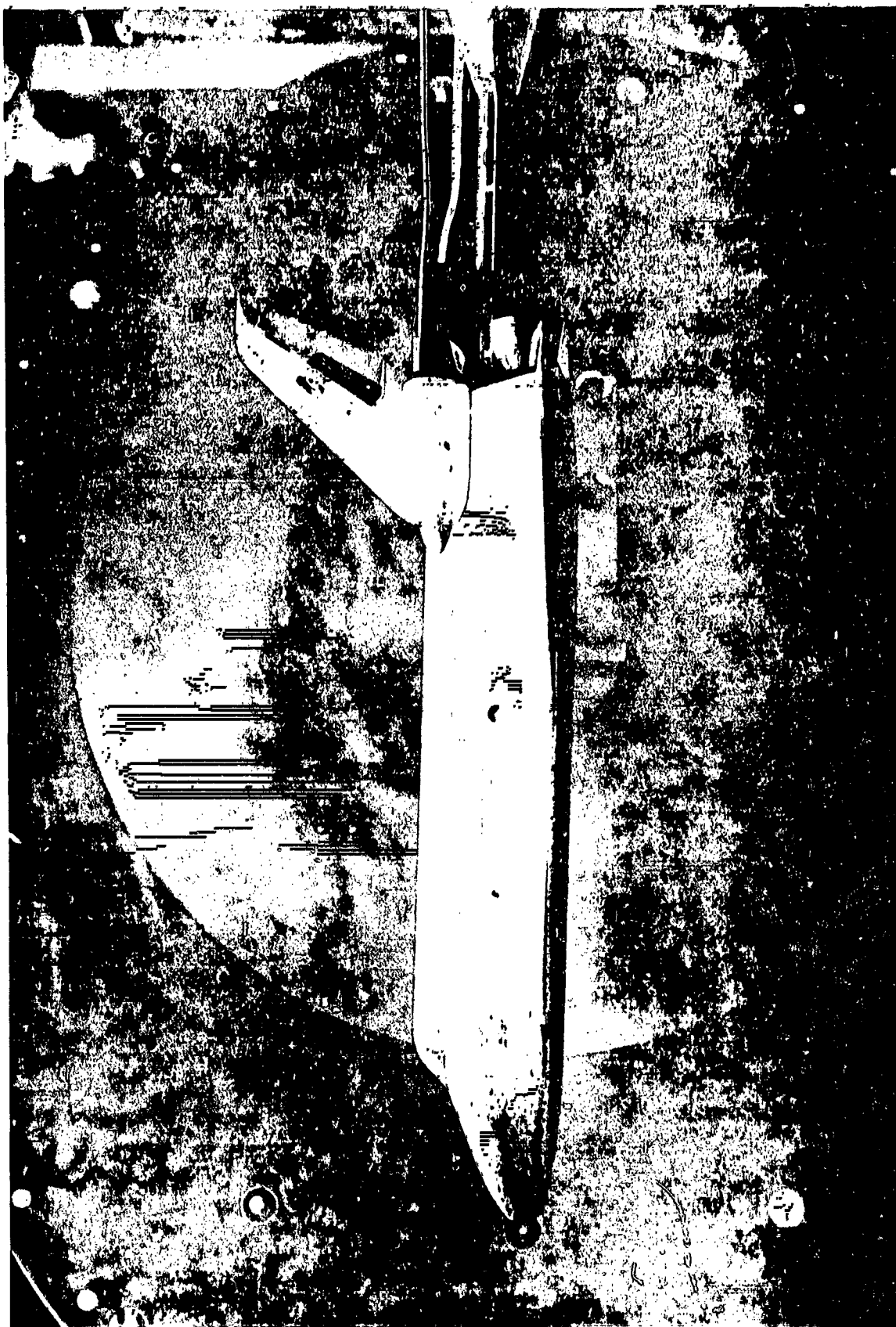
c. PCS Nozzle Adapter

Figure 2.- Continued.



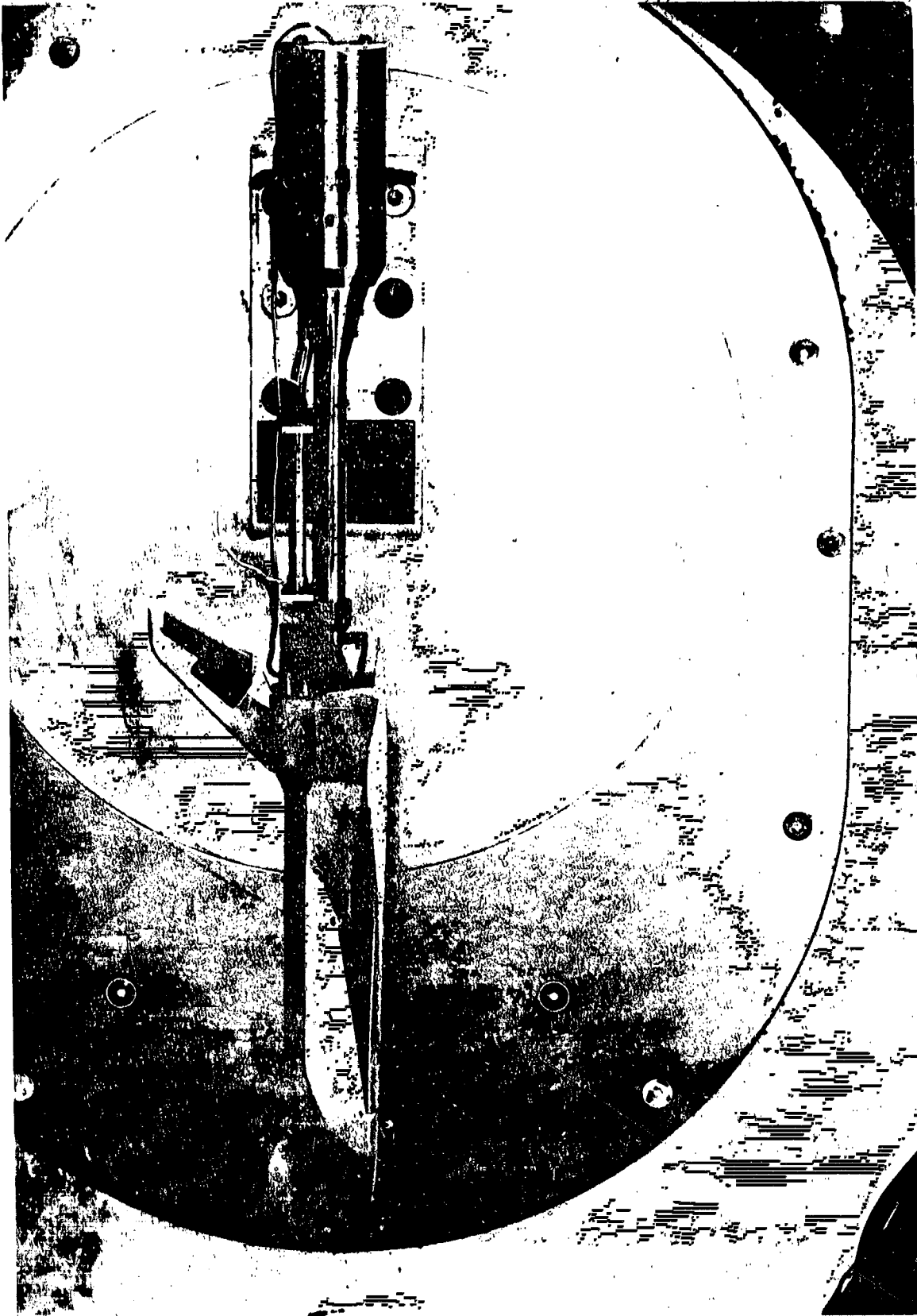
d. Model Nozzle Block Configurations

Figure 2. - Concluded.



a. Orbiter Installation Side View

Figure 3. - Model photographs.



b. Side View Of Nozzle Assembly Installed In Tunnel

Figure 3. - Concluded.

DATA FIGURES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/C	BDFLAP	BETA	REFERENCE INFORMATION
000001	LARC CPHT 118 (MA-22)	.000	.000	.000	.010	REF 2691.0000 INCHES
000002	LARC CPHT 118 (MA-22)	.000	.000	.000	.010	REF 474.8000 INCHES
000003	LARC CPHT 118 (MA-22)	.000	.000	.000	.010	REF 935.6800 INCHES
000004	LARC CPHT 118 (MA-22)	.000	.000	.000	.010	REF 1076.7000 IN. 10
000005	LARC CPHT 118 (MA-22)	.000	.000	.000	.010	REF 375.0000 IN. 10
000006	LARC CPHT 118 (MA-22)	.000	.000	.000	.010	SCALE .0100

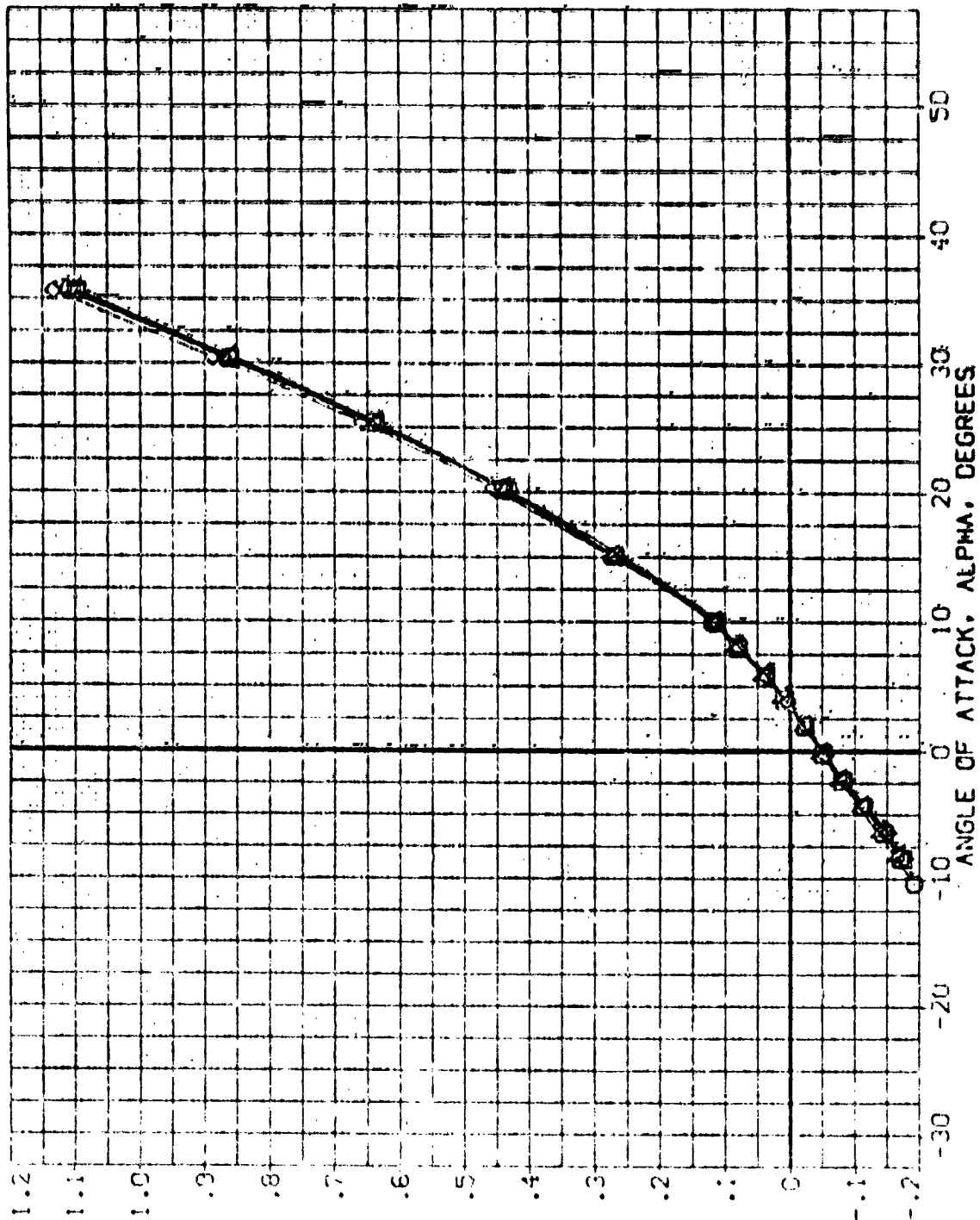


FIGURE 4. JET OFF AERO, ELEVON=0, BDFLAP=0, BETA=0

(MACH = 10.33)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/DA	BOFLAP	BETA	REFERENCE INFORMATION
(RJA005)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	SREF 2690.0000
(RJA012)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	LREF 474.5000
(RJA014)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	REF 936.5000
(RJA024)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	RP 1075.7000
(RJA025)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	MRP 8000
(RJA057)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	ZMRP 375.0000
						SCALE .0100

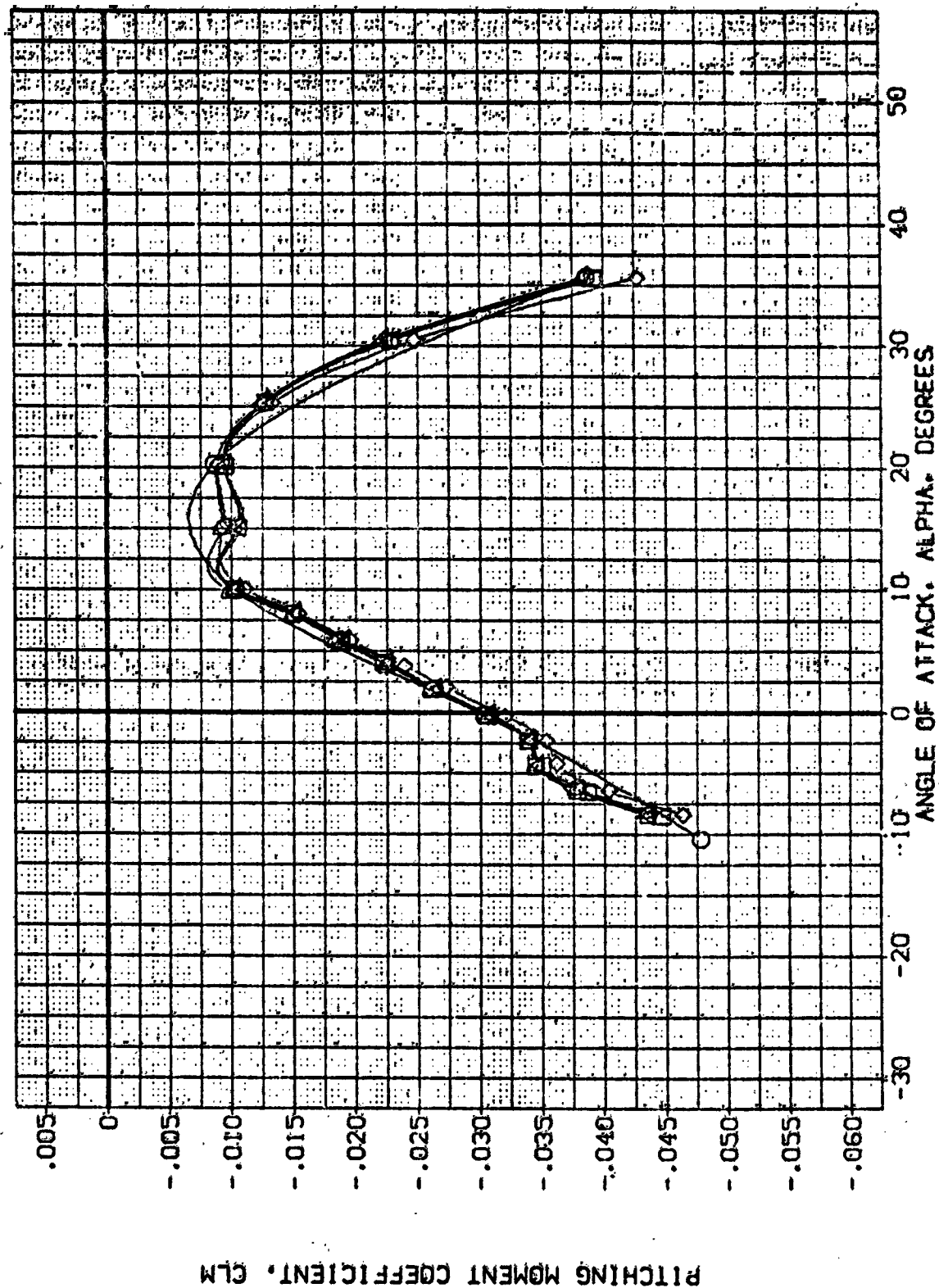


FIGURE 4. JET OFF AERO. ELEVON=0, BOFLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJ4005) LARC CFMT 118 (NA-22)
 (RJ4012) LARC CFMT 118 (NA-22)
 (RJ4014) LARC CFMT 118 (NA-22)
 (RJ4024) LARC CFMT 118 (NA-22)
 (RJ4025) LARC CFMT 118 (NA-22)
 (RJ4027) LARC CFMT 118 (NA-22)

ELEVON T/OA BDFLAP BETA REFERENCE INFORMATION
 .000 .000 .000 SREF 2690.0000 SQ.FT.
 .000 .000 .000 LREF 474.8000 INCHES
 .000 .000 .000 BREF 938.6800 INCHES
 .000 .000 .000 YARP 1076.7000 IN. YD
 .000 .000 .000 ZARP 375.0000 IN. YD
 .000 .000 .000 SCALE .0100

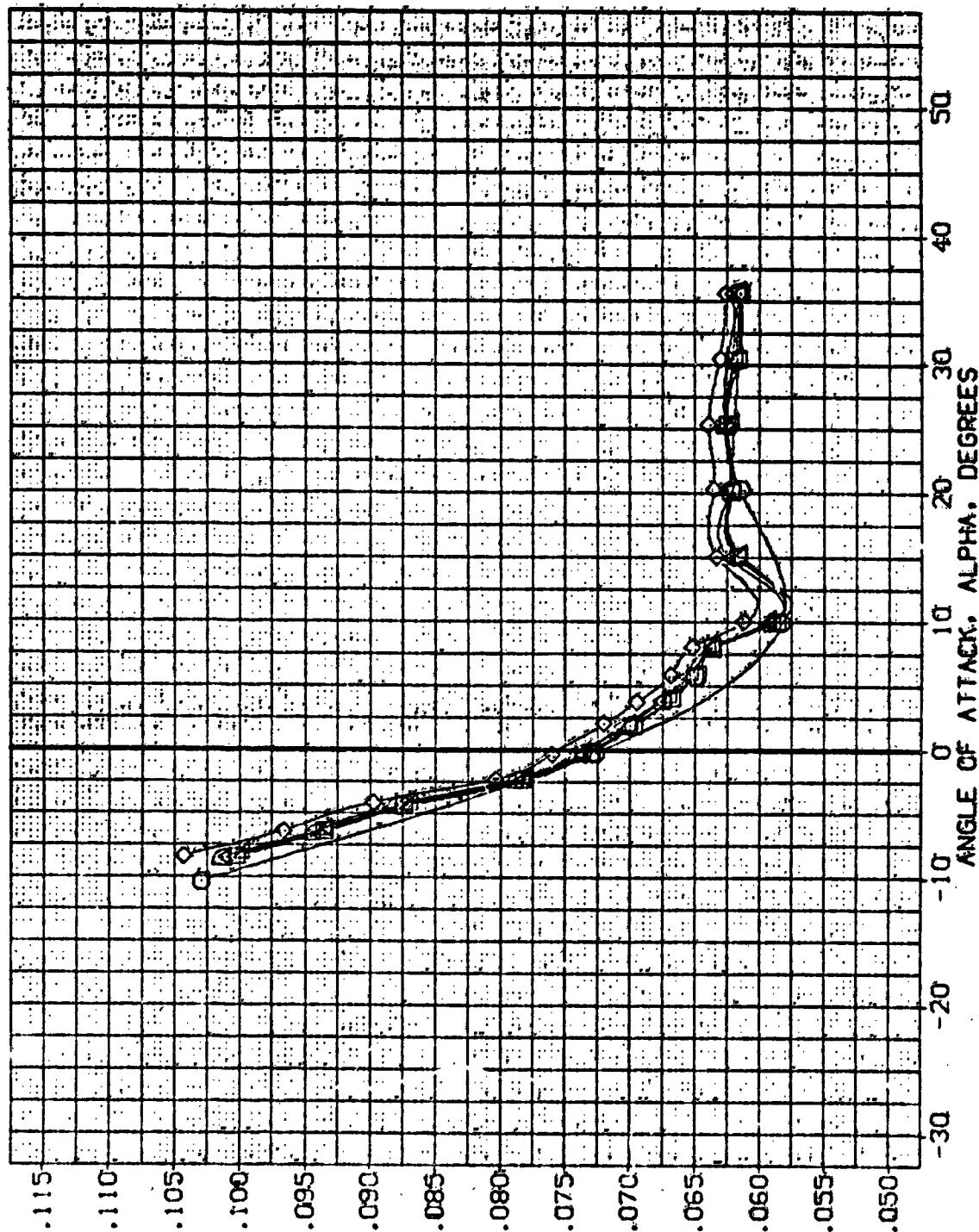


FIGURE 4. JET OFF AERO, ELEVON=0, BDFLAP=0, BETA=0

(MACH = 10.33)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA	BOFLAP	BETA	REFERENCE INFORMATION
(RJ005)	LARC CFHT 118 (MA-22)	.000	.000	.000	.000	SREF 2690.0000 IN. 50. FT.
(RJ007)	LARC CFHT 118 (MA-22)	.000	.000	.000	.000	LREF 474.8000 INCHES
(RJ009)	LARC CFHT 118 (MA-22)	.000	.000	.000	.000	BREF 936.6800 IN. 10
(RJ011)	LARC CFHT 118 (MA-22)	.000	.000	.000	.000	YREF 1076.7000 IN. 10
(RJ013)	LARC CFHT 118 (MA-22)	.000	.000	.000	.000	ZREF 375.0000 IN. 10
(RJ015)	LARC CFHT 118 (MA-22)	.000	.000	.000	.000	SCALE .0100

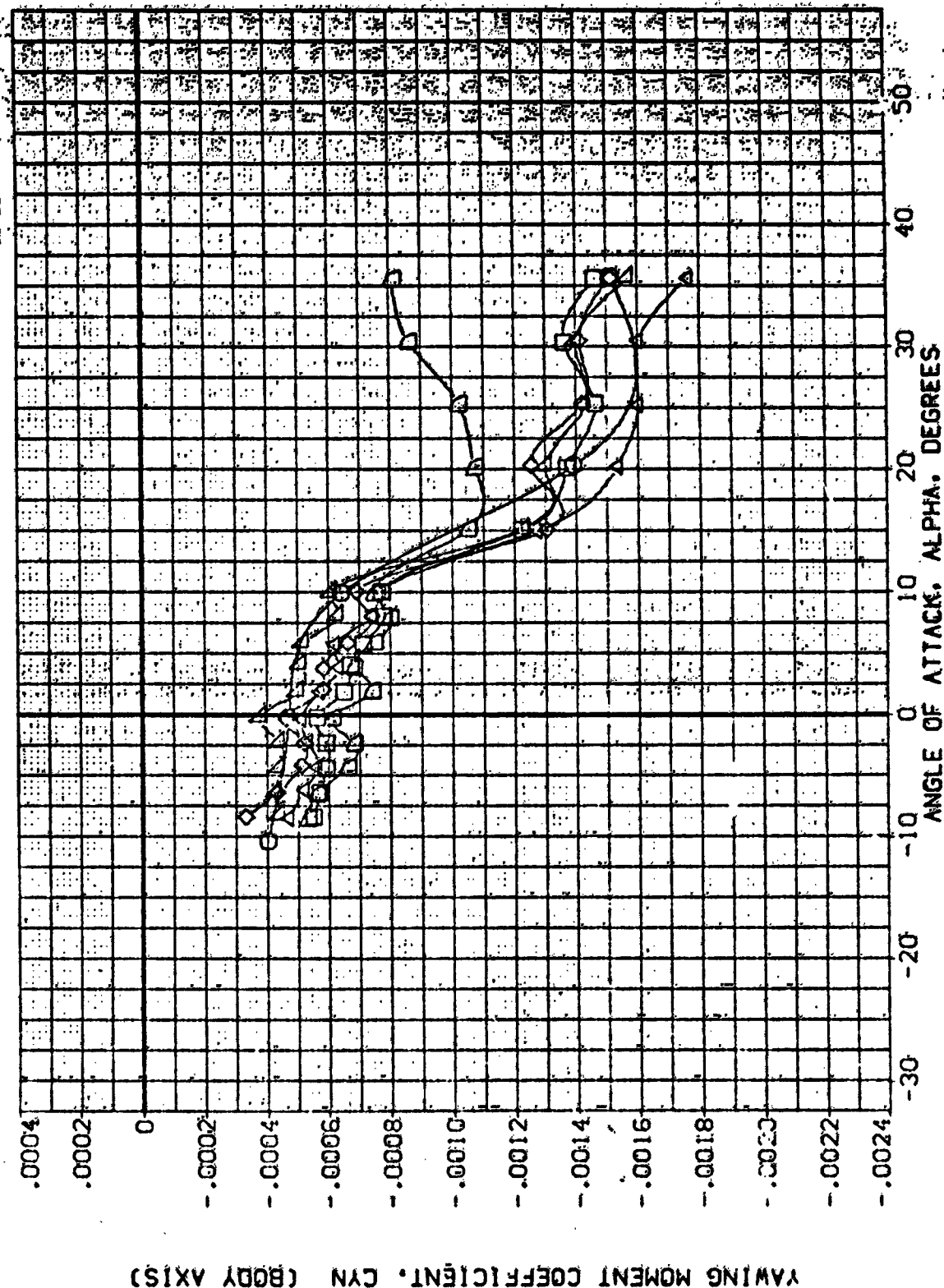


FIGURE 4. JET OFF AERO. ELEVON=0, BOFLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA	BDFLAP	BETA	REFERENCE INFORMATION
(RJAG05)	GIN49 LARC CFHT 118 (MA-22)	.000	.000	.000	.000	SREF 2690.0000 IN. FT.
(RJAG12)	GIN31 LARC CFHT 118 (MA-22)	.000	.000	.000	.000	LREF 474.8000 IN. FT.
(RJAG14)	GIN31 LARC CFHT 118 (MA-22)	.000	.000	.000	.000	BREF 936.6800 IN. FT.
(RJAG24)	GIN43 LARC CFHT 118 (MA-22)	.000	.000	.000	.000	XMRP 1076.7000 IN. FT.
(RJAG25)	GIN43 LARC CFHT 118 (MA-22)	.000	.000	.000	.000	YMRP .0000 IN. FT.
(RJAG57)	GIN32 LARC CFHT 118 (MA-22)	.000	.000	.000	.000	ZMRP 375.0000 IN. FT.
						SCALE .0100

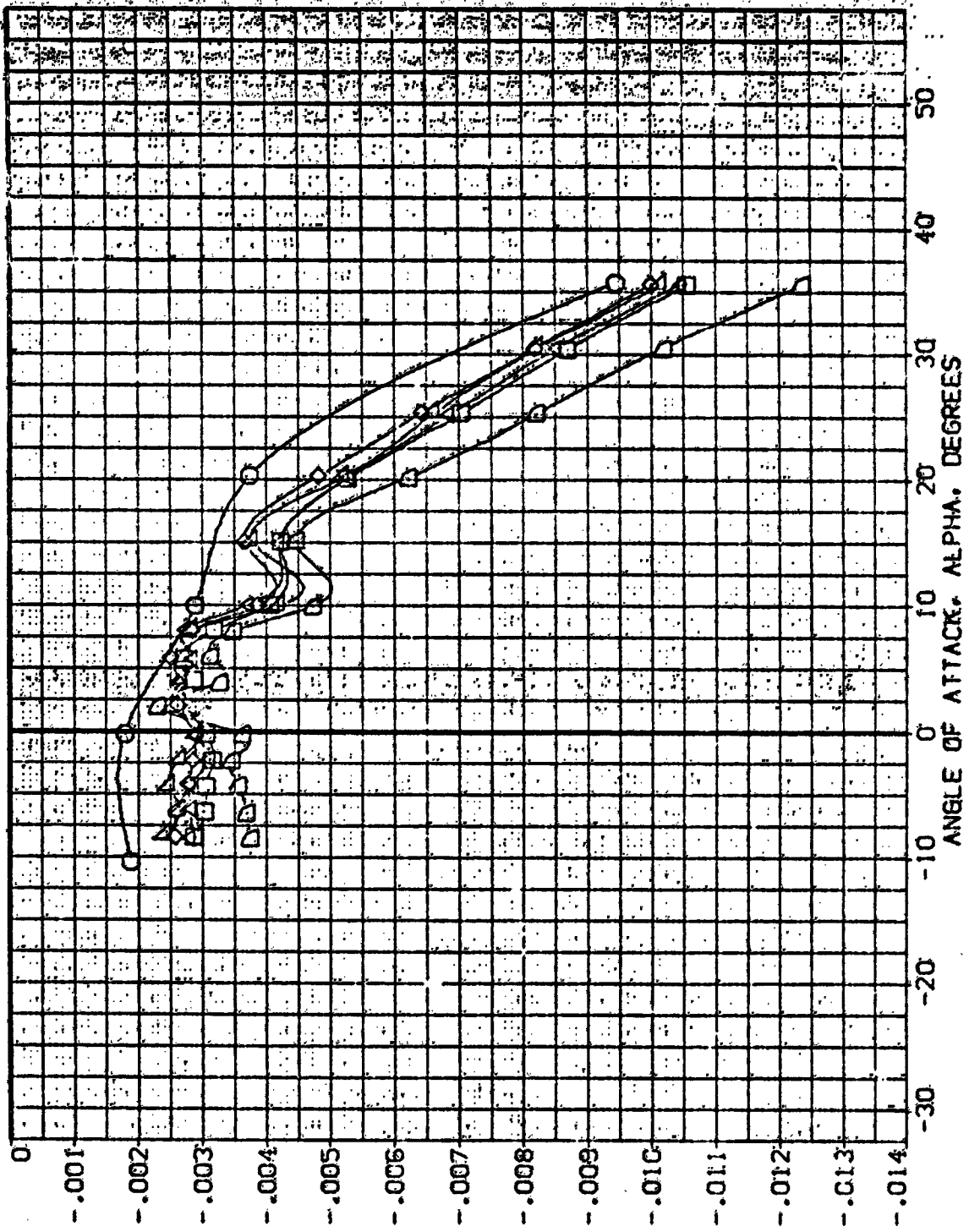


FIGURE 4. JET OFF AERO. ELEVON=0, BDFLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RJ0014) QIN31 LARC CFMT 118 (MA-22)

(RJ0024) QIN43 LARC CFMT 118 (MA-22)

(RJ0025) QIN43 LARC CFMT 118 (MA-22)

(RJ0059) QIN32 LARC CFMT 118 (MA-22)

(RJ0085) QIN84 LARC CFMT 118 (MA-22)

(RJ0090) QIN84 LARC CFMT 118 (MA-22)

ELEVON T/OA BDFLAP BETA REFERENCE INFORMATION

.000 .000 .000 .000 SREF 2690.0000 SO.FT.

.000 .000 .000 .000 LREF 474.8000 INCHES

.000 .000 .000 .000 BREF 936.6000 INCHES

.000 .000 .000 .000 YMRP 1076.7000 IN. X0

.000 .000 .000 .000 ZMRP .0000 IN. Y0

.000 .000 .000 .000 SCALE 375.0000 IN. Z0

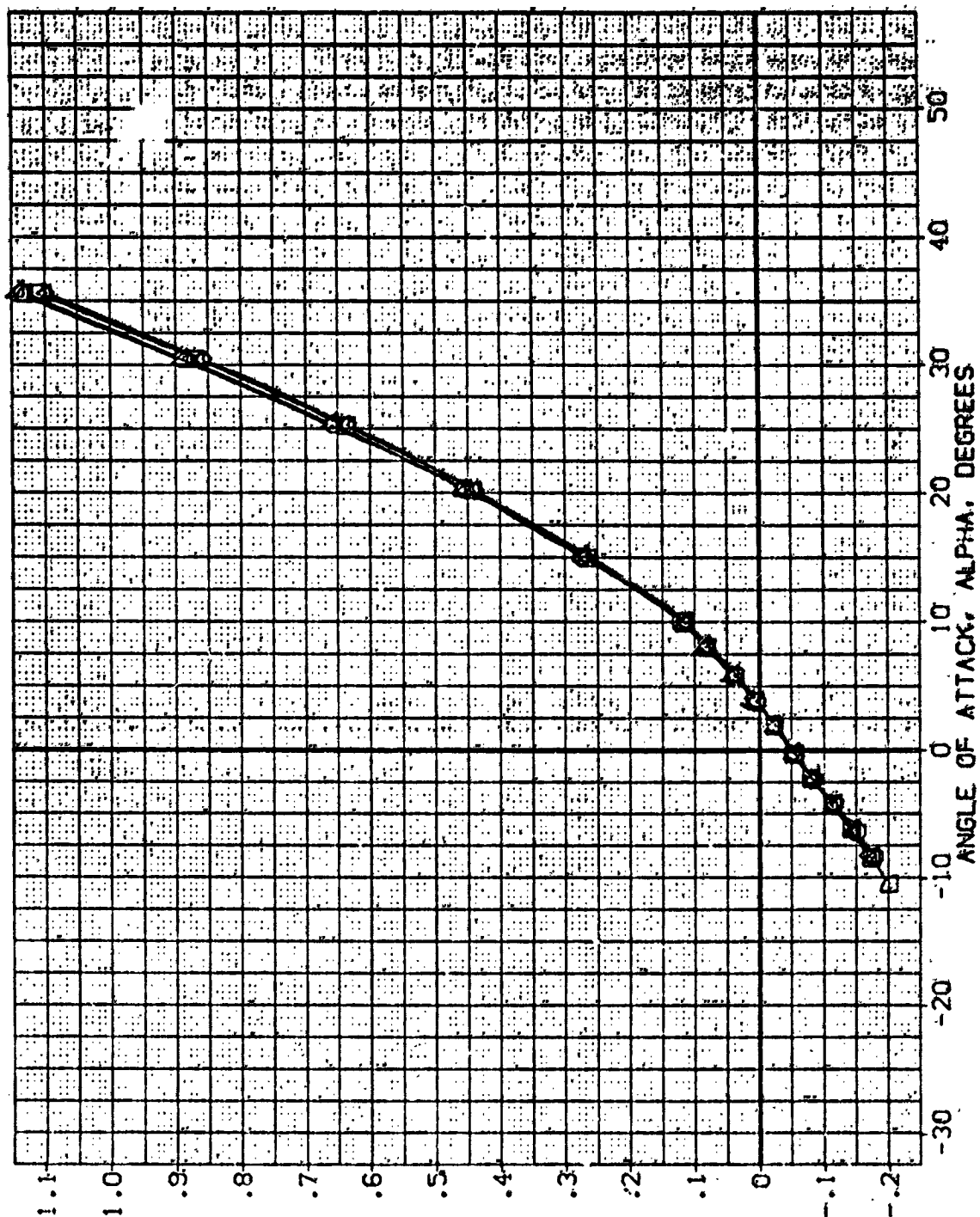


FIGURE 5. JET OFF AERO. ELEVON=0, BDFLAP=0, BETA=0

(AJMACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA	80°FLAP	BETA	REFERENCE INFORMATION
(RJ4014)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	2690.0000 IN. FT.
(RJ4024)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	474.8000 IN. FT.
(RJ4025)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	936.8000 IN. FT.
(RJ4057)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	1076.7000 IN. FT.
(RJ4086)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	3.0000 IN. FT.
(RJ4090)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	375.0000 IN. FT.
						SCALE

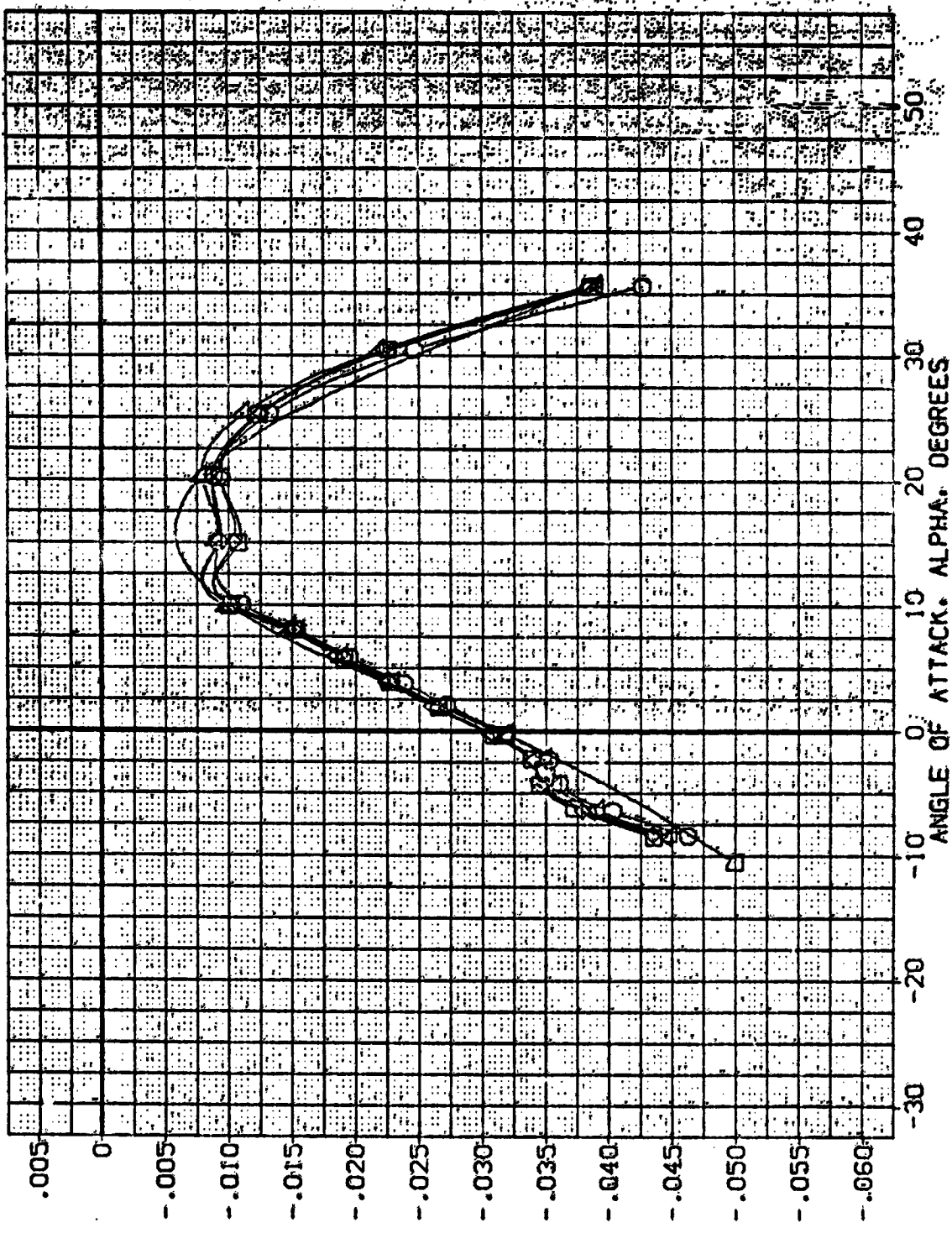
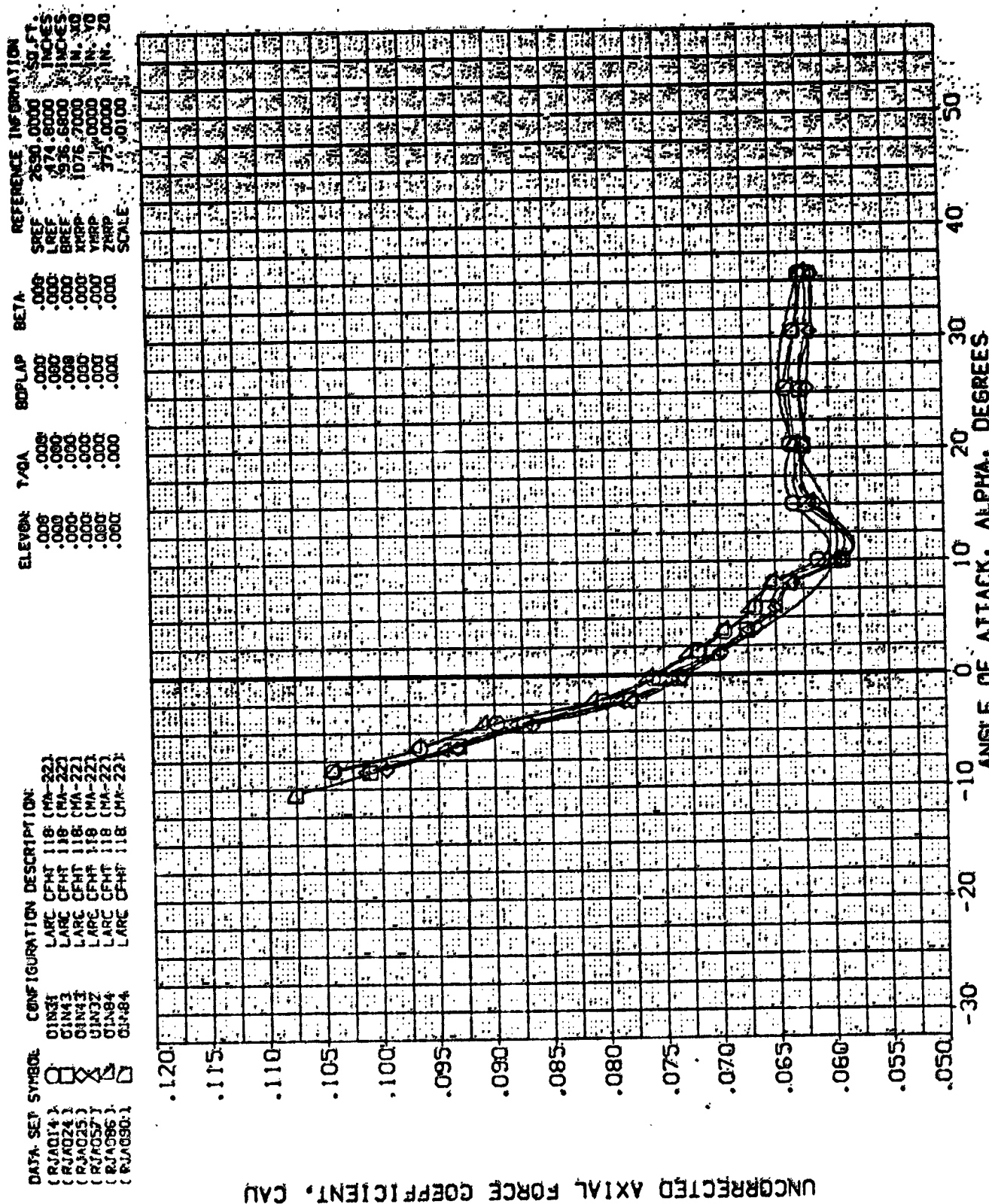


FIGURE 5. JET OFF AERO, ELEVON=0, 80°FLAP=0, BETA=0

(M)MACH = 10.33

(A)MACH = 10.33

FIGURE 5. JET OFF AERO. ELEVON=0, BDFLAP=0, BETA=0



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RJAO14)	Q1N31	LARC CFHT 118 (MA-22)
(RJAO24)	Q1N43	LARC CFHT 118 (MA-22)
(RJAO25)	Q1N43	LARC CFHT 118 (MA-22)
(RJAO57)	Q1N32	LARC CFHT 118 (MA-22)
(RJAO86)	Q1N84	LARC CFHT 118 (MA-22)
(RJAO90)	Q1N84	LARC CFHT 118 (MA-22)

ELEVON T/OA BOFLAP BETA

.000	.000	.000
.000	.000	.000
.000	.000	.000
.000	.000	.000
.000	.000	.000
.000	.000	.000
.000	.000	.000
.000	.000	.000
.000	.000	.000
.000	.000	.000

REFERENCE INFORMATION

SREF	2630.0000	SO.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XPBP	1076.7000	IN. X0
YPBP	1000.0000	IN. Y0
ZPBP	375.0000	IN. Z0
SCALE	0100	

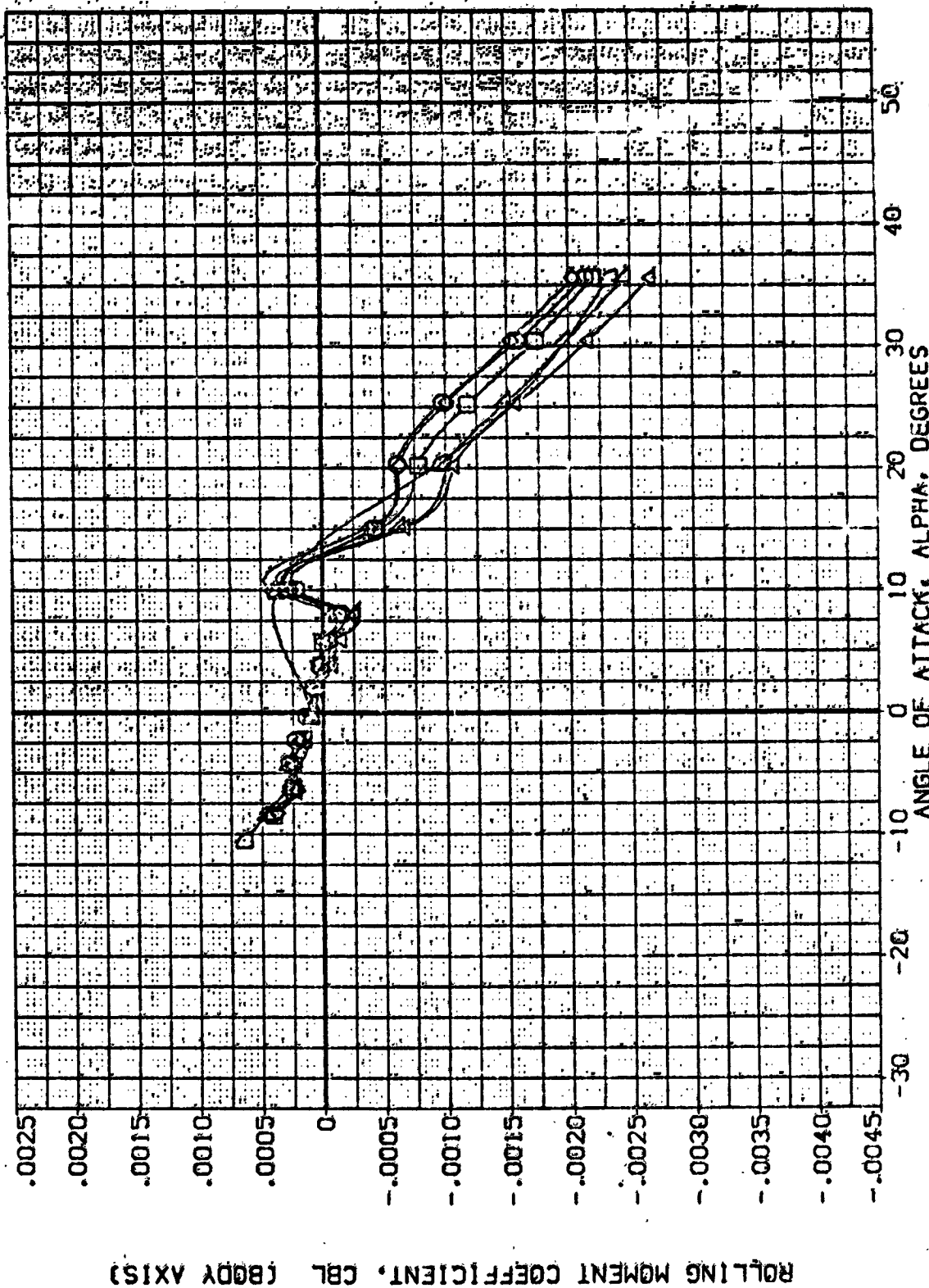


FIGURE 5. JET OFF AERO. ELEVON=0, BOFLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RJAG:4) QIN31 LARC CFHT 118 (MA-22)

(RJAG:4) QIN43 LARC CFHT 118 (MA-22)

(RJAG:4) QIN43 LARC CFHT 118 (MA-22)

(RJAG:4) QIN32 LARC CFHT 118 (MA-22)

(RJAG:4) QIN84 LARC CFHT 118 (MA-22)

(RJAG:4) QIN84 LARC CFHT 118 (MA-22)

ELEVON T/OA BOFLAP BETA REFERENCE INFORMATION

.000 .000 .000 .000 SPREF 2690.0000 SQ.FT.

.000 .000 .000 .000 LAREF 474.8000 INCHES

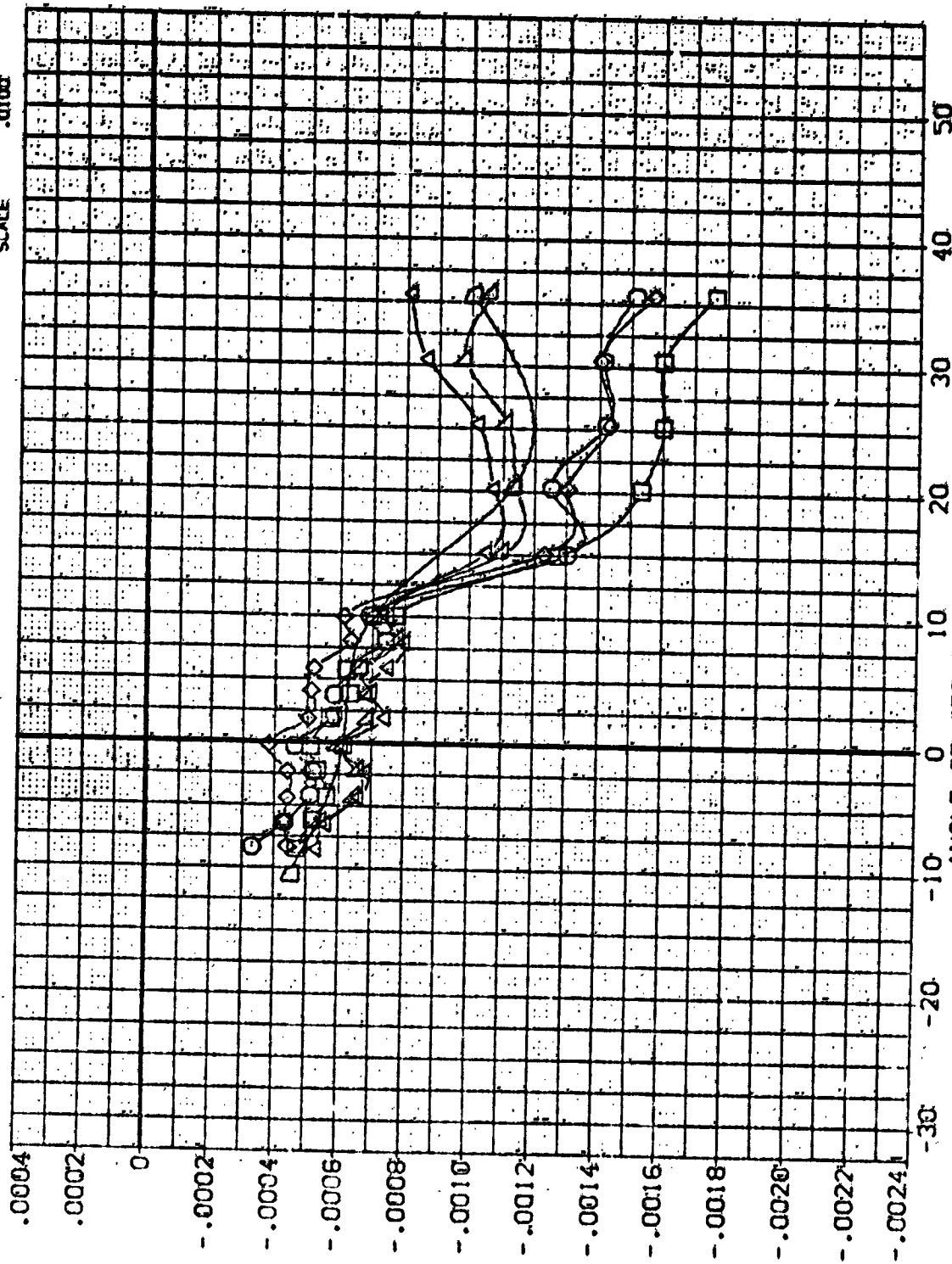
.000 .000 .000 .000 BREF 936.6800 INCHES

.000 .000 .000 .000 XPRP 1076.7000 IN. RG

.000 .000 .000 .000 YPRP .0000 IN. YG

.000 .000 .000 .000 ZPRP 375.0000 IN. ZG

SCALE .0100



YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

FIGURE 5. JET OFF AERO. ELEVON=0, BOFLAP=0, BETA=0
(MACH = 10.33)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RJADY4)	QIN81	LARC CFHT 118 (NA-221)
(RJADY5)	QIN82	LARC CFHT 118 (NA-221)
(RJADY6)	QIN83	LARC CFHT 118 (NA-221)
(RJADY7)	QIN84	LARC CFHT 118 (NA-221)
(RJADY8)	QIN85	LARC CFHT 118 (NA-221)

ELEVON T/OA BDFLAP BETA REFERENCE INFORMATION

.000	.000	.000	SREF	2630.0000	50.00
.000	.000	.000	LREF	474.0000	INCHES
.000	.000	.000	SREF	935.0000	INCHES
.000	.000	.000	XREF	1075.0000	IN. IN
.000	.000	.000	YREF	375.0000	IN. IN
.000	.000	.000	ZREF	0.0000	IN. IN
.000	.000	.000	SCALE	.0100	

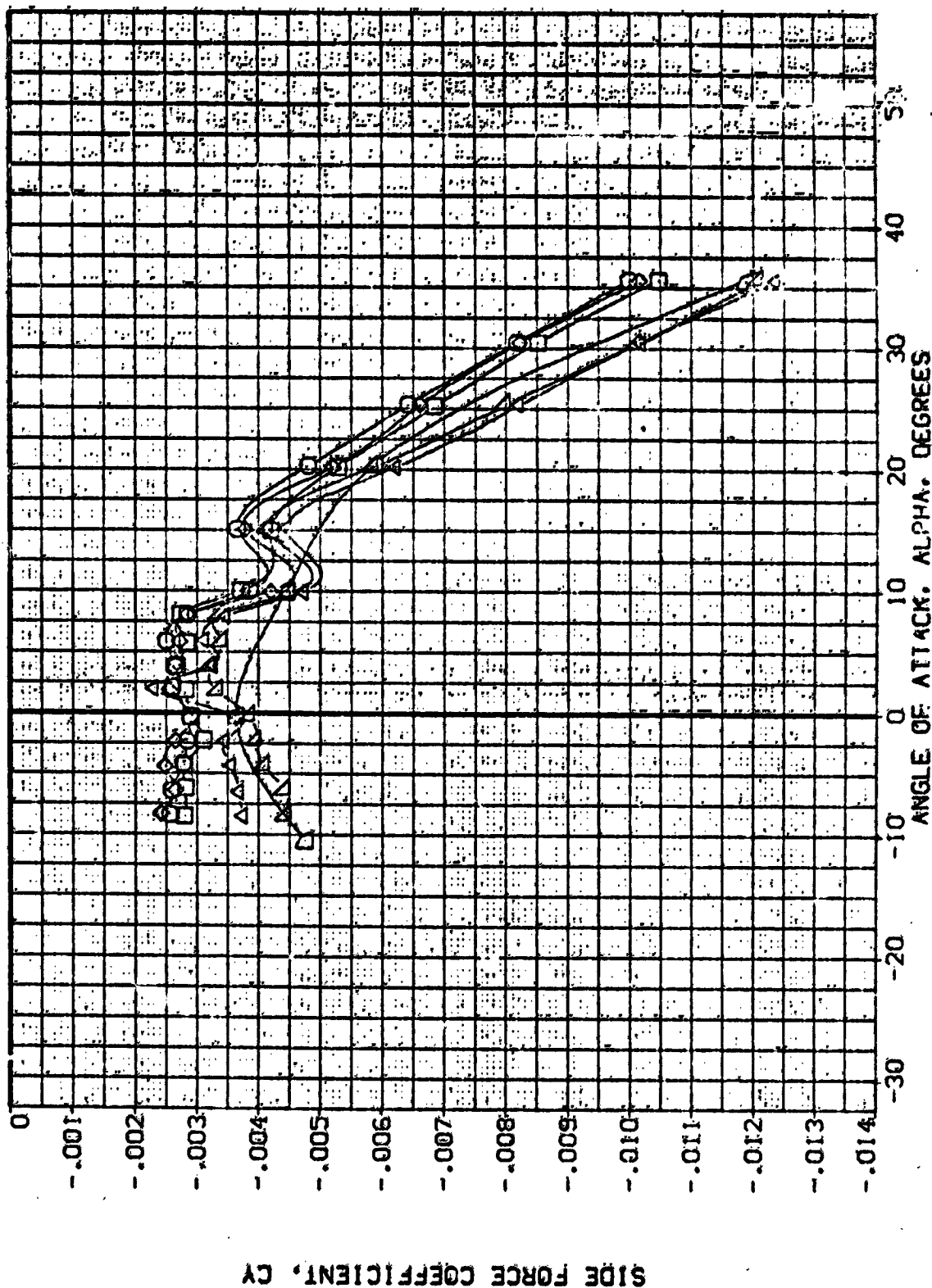


FIGURE 5. JET OFF AERO. ELEVON=0, BDFLAP=0, BETA=0

(A) MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA	BDFLAP	BETA	REFERENCE INFORMATION
(RJA006)	GIN49 LARC CFMT 118 (MA-22)	.000	.000	.000	.000	SREF 2690.0000 SO.FT.
(RJA090)	GIN49 LARC CFMT 118 (MA-22)	.000	.000	.000	.000	LREF 474.8000 INCHES
(RJA162)	GIN49 LARC CFMT 118 (MA-22)	.000	.000	.000	.000	BREF 936.6800 INCHES
(RJA136)	GIN51 LARC CFMT 118 (MA-22)	.000	.000	.000	.000	WREF 1076.7000 IN. TO
(RJA143)	GIN76 LARC CFMT 118 (MA-22)	.000	.000	.000	.000	ZREF 395.0000 IN. TO
						SCALE .0100

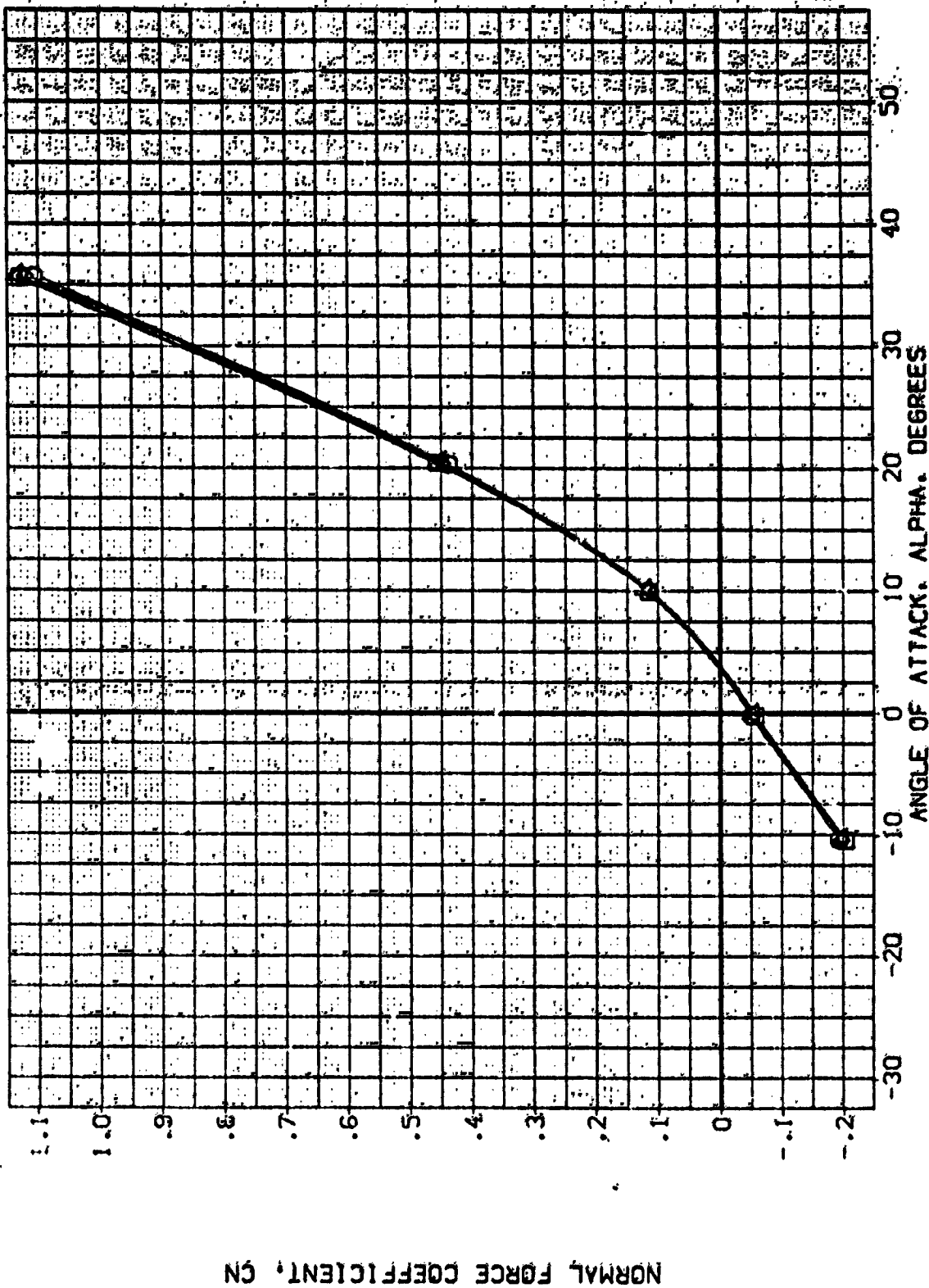


FIGURE 6. JET OFF AERO. ELEVON=0, BDFLAP=0, BETA=0

(A)MACH = 10.33

REFERENCE INFORMATION
 SREF 2650.0000 SQ. FT.
 LREF 474.8000 INCHES
 JREF 935.5000 INCHES
 100P 1076.7000 IN. TO
 100P .0000 IN. TO
 100P 375.0000 IN. TO
 SCALE .0100

ELEVON TAOA BOFLAP BETA
 .000 .000 .000
 .000 .000 .000
 .000 .000 .000
 .000 .000 .000
 .000 .000 .000
 .000 .000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJAB05) 01N49 LARC CFHT 118 (MA-221)
 (RJAB09) 01N84 LARC CFHT 118 (MA-221)
 (RJAB09) 01N84 LARC CFHT 118 (MA-221)
 (RJAB09) 01N84 LARC CFHT 118 (MA-221)
 (RJAB09) 01N84 LARC CFHT 118 (MA-221)
 (RJAB09) 01N84 LARC CFHT 118 (MA-221)
 (RJAB09) 01N84 LARC CFHT 118 (MA-221)
 (RJAB09) 01N84 LARC CFHT 118 (MA-221)

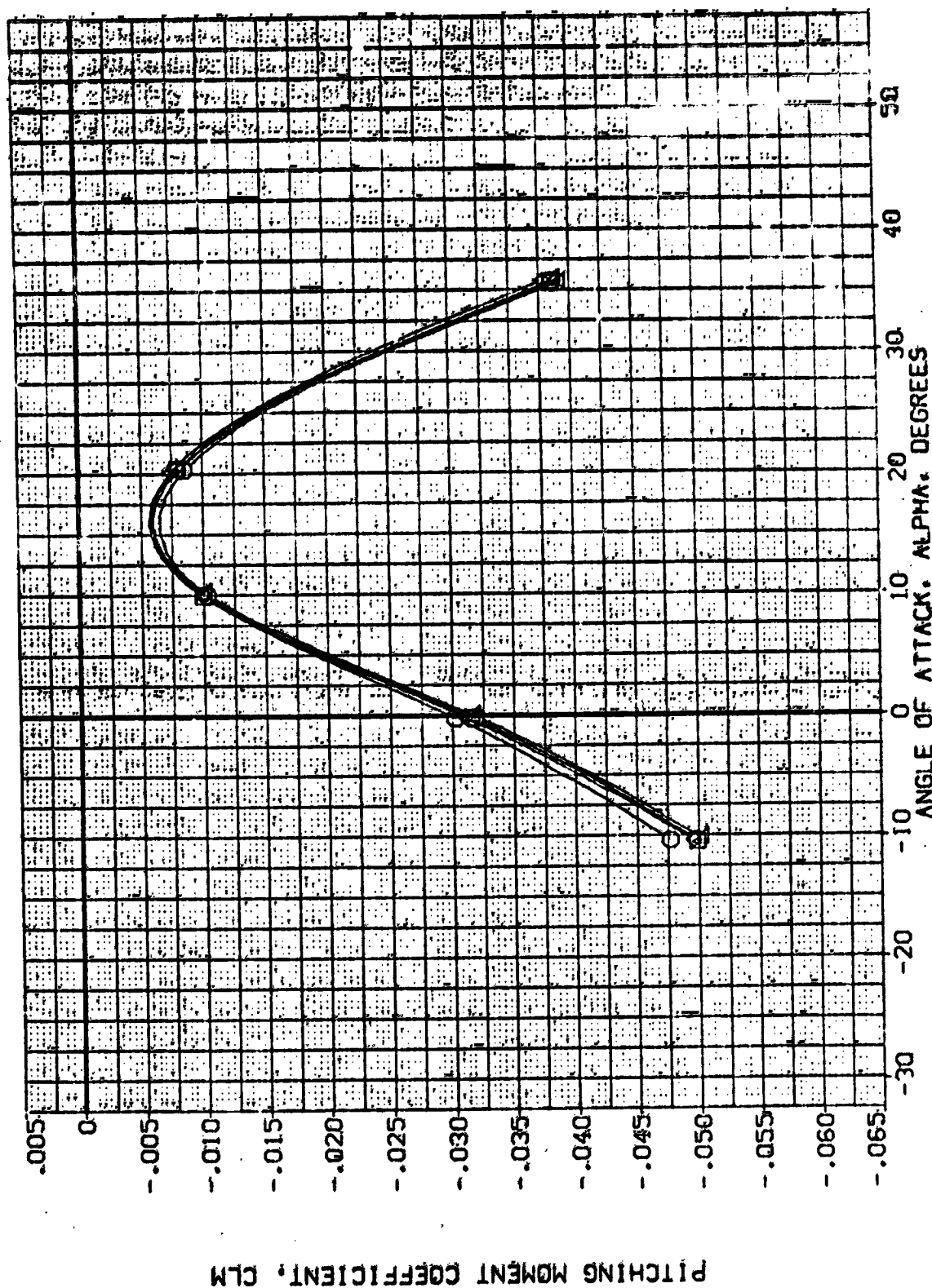


FIGURE 6. JET OFF AERO, ELEVON=0; BOFLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJAC08) QIN49 LARC CFHT 118 (MA-22)
 (RJAC09) QIN84 LARC CFHT 118 (MA-22)
 (RJAC12) QIN85W50 LARC CFHT 118 (MA-22)
 (RJAC13) QIN51 LARC CFHT 118 (MA-22)
 (RJAC14) QIN78 LARC CFHT 118 (MA-22)

ELEVON T/OA BDFLAP BETA REFERENCE INFORMATION
 .000 .000 .000 SREF 2690.0000 50.00
 .000 .000 .000 LREF 474.8000 INCHES
 .000 .000 .000 BREF 926.5000 INCHES
 .000 .000 .000 YMRP 1076.2000 IN. 10
 .000 .000 .000 ZMRP 375.0000 IN. 10
 SCALE .0100

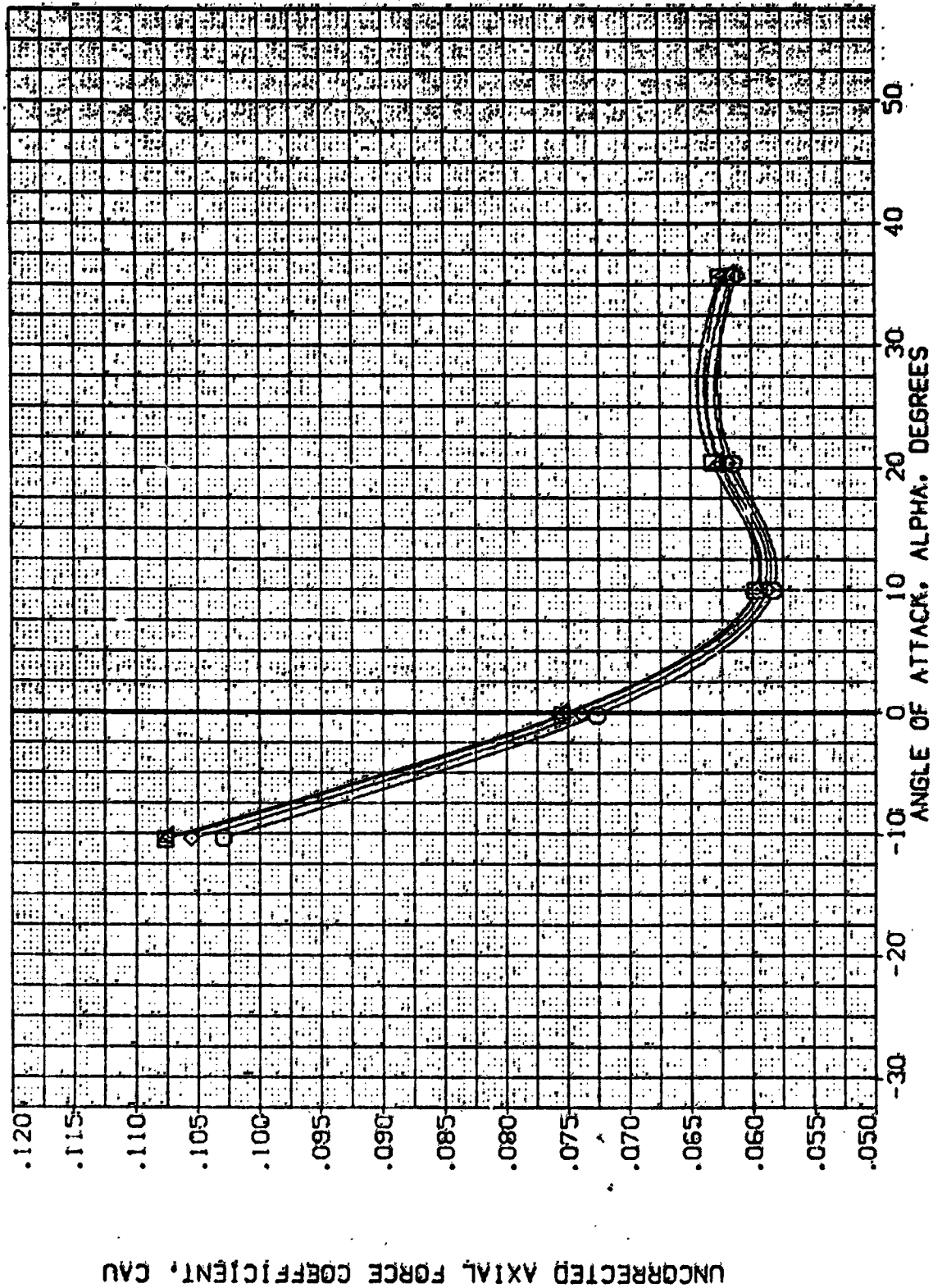


FIGURE 6. JET OFF AERO, ELEVON=0, BDFLAP=0, BETA=0

CAJ MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/QA	BDFLAP	DETA	REFERENCE INFORMATION
(RJA005)	Q1N48 LARC CFHT 118 (MA-22)	.000	.000	.000	.000	SREF 2690.0000 SO.FT.
(RJA050)	Q1N48 LARC CFHT 118 (MA-22)	.000	.000	.000	.000	LREF 474.8100 INCHES
(RJA102)	Q1N50 LARC CFHT 118 (MA-22)	.000	.000	.000	.000	BREF 936.8800 INCHES
(RJA136)	Q1N51 LARC CFHT 118 (MA-22)	.000	.000	.000	.000	XRRP 1076.7000 IN. TO
(RJA143)	Q1N78 LARC CFHT 118 (MA-22)	.000	.000	.000	.000	YRRP 375.8080 IN. TO
						SCALE .0100

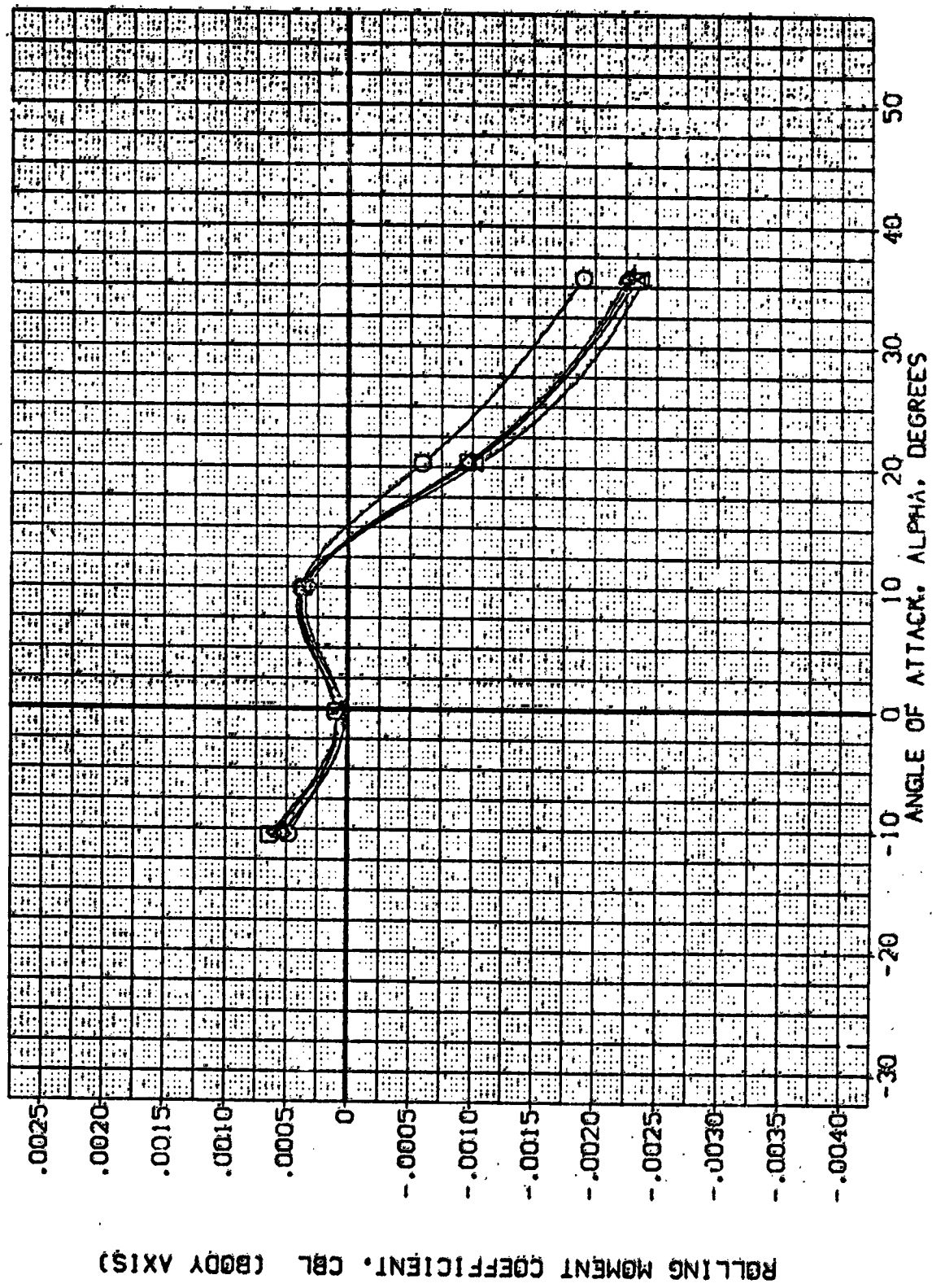


FIGURE 6. JET OFF AERO, ELEVON=0, BDFLAP=0, BETA=0

(AJMACH = 10.33)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RJA003)	Q1N49	LARC CFHT 118 (MA-22)
(RJA050)	Q1N84	LARC CFHT 118 (MA-22)
(RJA102)	Q1N85NSO	LARC CFHT 118 (MA-22)
(RJA136)	Q1N51	LARC CFHT 118 (MA-22)
(RJA143)	Q1N78	LARC CFHT 118 (MA-22)

ELEVON T/OA BDFLAP BETA REFERENCE INFORMATION

.000	.000	.000	SREF	2690.0000	50 FT.
.000	.000	.000	LREF	474.8000	INCHES
.000	.000	.000	BREF	936.6800	INCHES
.000	.000	.000	YMRP	1076.7000	IN. 10
.000	.000	.000	ZMRP	375.0800	IN. 20
			SCALE		.0100

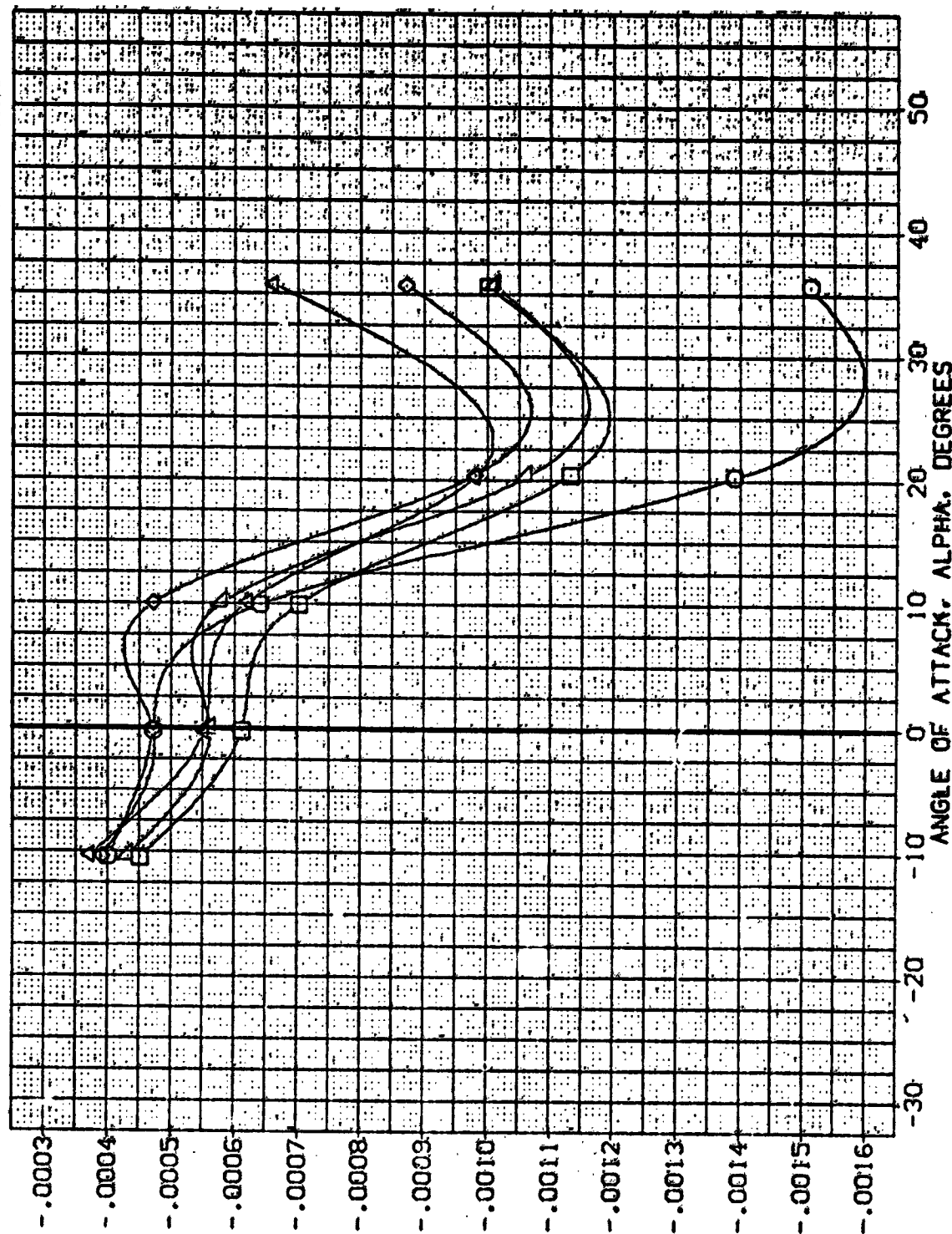


FIGURE 6. JET OFF AERO. ELEVON=0, BDFLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJ174) 1 Q1N82 LARC CFMT 118 (MA-22)
 (RJ177) 1 Q1N82 LARC CFMT 118 (MA-22)
 (RJ215) 1 Q1N83 LARC CFMT 118 (MA-22)
 (RJ218) 1 Q1N83 LARC CFMT 118 (MA-22)

ELEVON T/DA BDFLAP BETA REFERENCE INFORMATION
 .000 .000 .000 SREF 2650.0000 SO.FT.
 .008 .000 .000 LREF 474.8000 INCHES
 .000 .000 .000 BREF 936.6000 INCHES
 .000 .000 .000 XREF 1076.2000 IN. 10
 .000 .000 .000 YREF 375.0000 IN. 10
 ZREF .0100
 SCALE

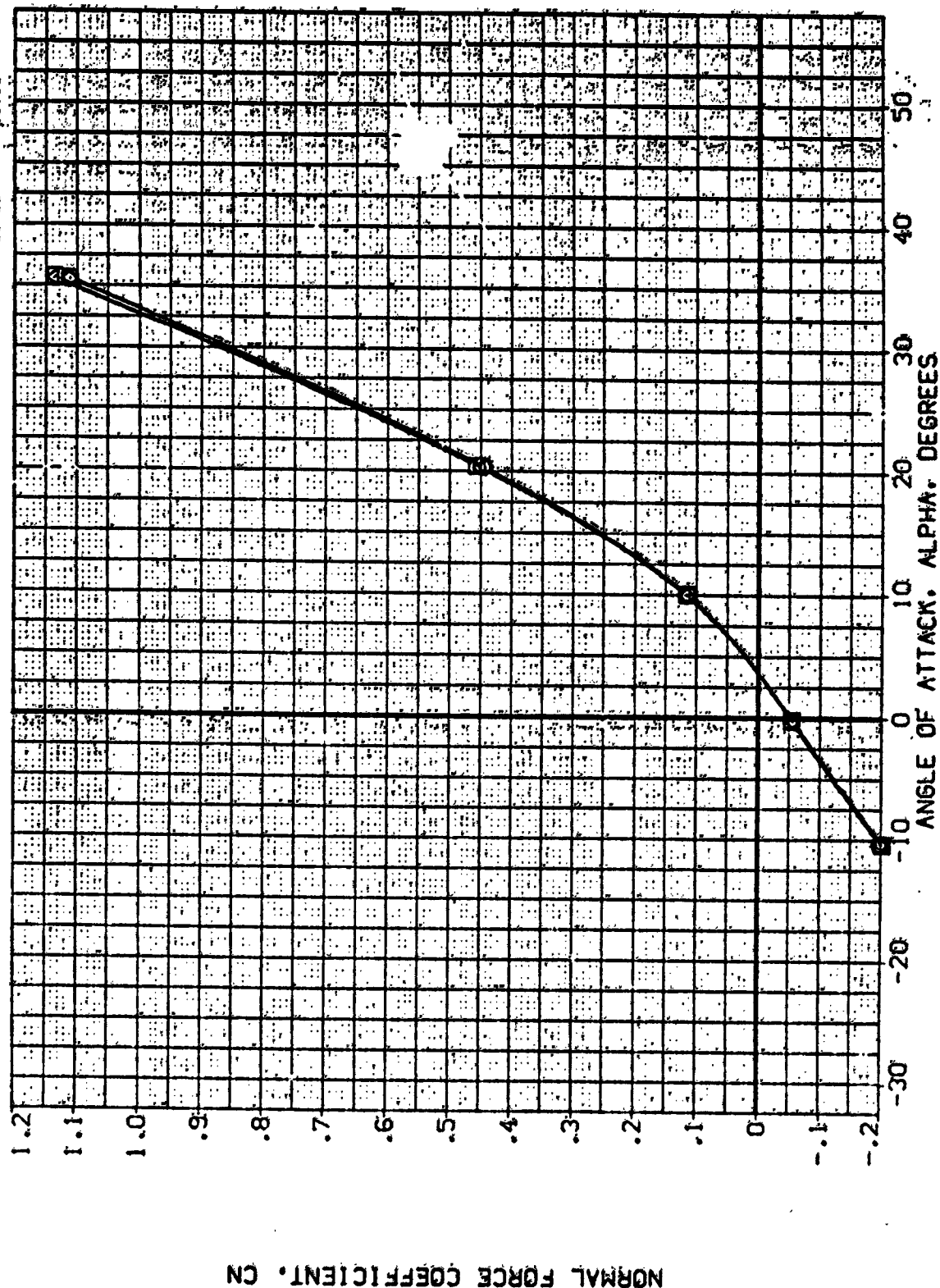


FIGURE 7. JET OFF AERO. ELEVON=0, BDFLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA	BDFLAP	BETA	REFERENCE INFORMATION
(RJA174)	QIN82 LARC CFMT 118 (MA-22)	.000	.000	.000	.000	SREF 2650.0000 IN. 20
(RJA177)	QIN82 LARC CFMT 118 (MA-22)	.000	.000	.000	.000	LREF 474.8000 INCHES
(RJA215)	QIN83 LARC CFMT 118 (MA-22)	.000	.000	.000	.000	BREF 936.6800 INCHES
(RJA218)	QIN83 LARC CFMT 118 (MA-22)	.000	.000	.000	.000	YMRP 1076.7000 IN. 20
						YMRP .0000 IN. 20
						ZMRP 375.0000 IN. 20
						SCALE .0100

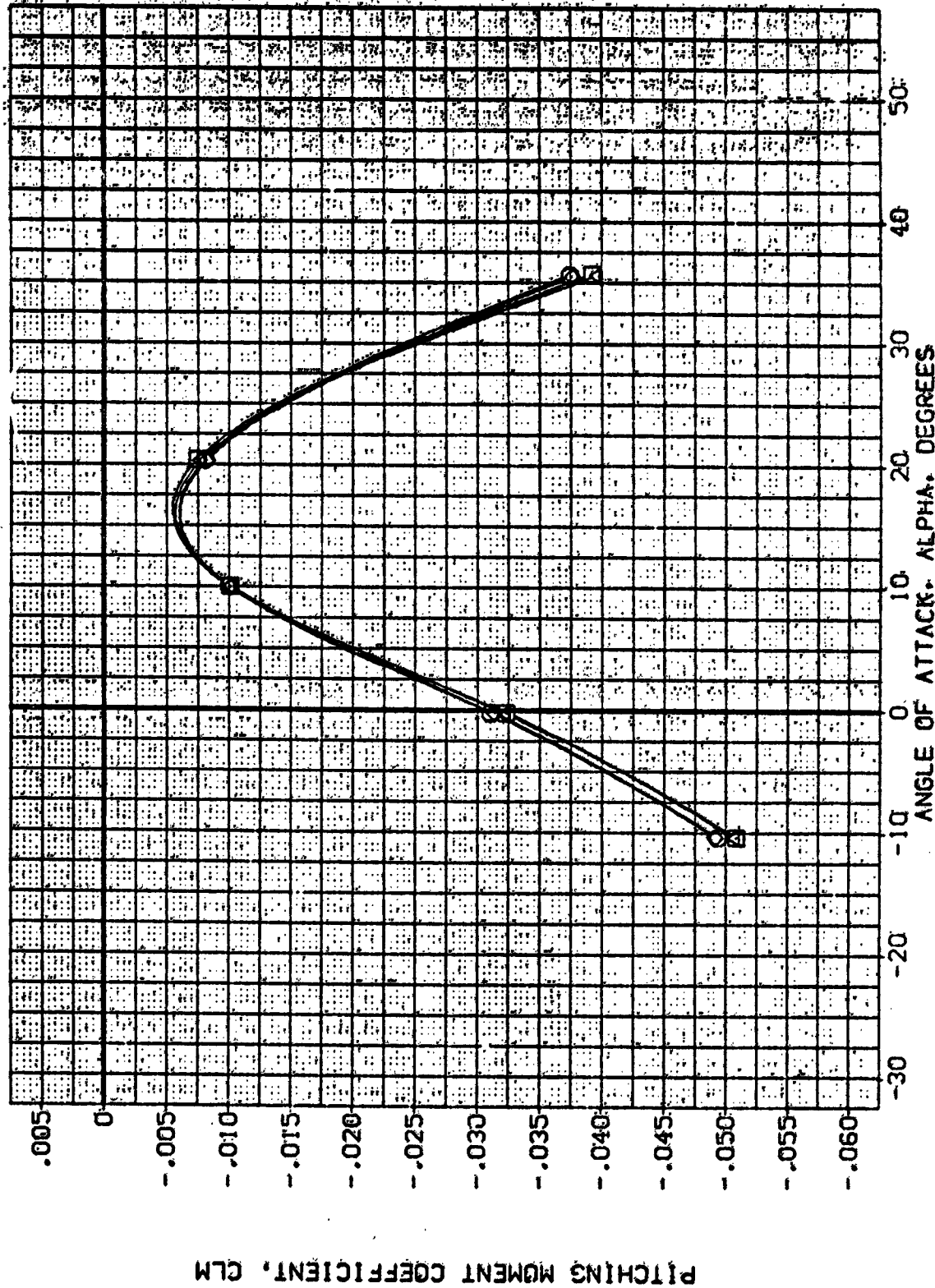


FIGURE 7. JET OFF AERO. ELEVON=0, BDFLAP=0, BETA=0

(M)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA	BOFLAP	BETA	REFERENCE INFORMATION
(RJA174)	LARC CFHT 118 (MA-221)	.000	.000	.000	.000	SREF 2650.0000 SO. FT.
(RJA177)	LARC CFHT 118 (MA-221)	.000	.000	.000	.000	LREF 474.8000 INCHES
(RJA215)	LARC CFHT 118 (MA-221)	.000	.000	.000	.000	BREF 936.6800 INCHES
(RJA218)	LARC CFHT 118 (MA-221)	.000	.000	.000	.000	XREF 1076.7000 IN. X0
						YREF .0000 IN. Y0
						ZREF 375.0000 IN. Z0
						SCALE .0100

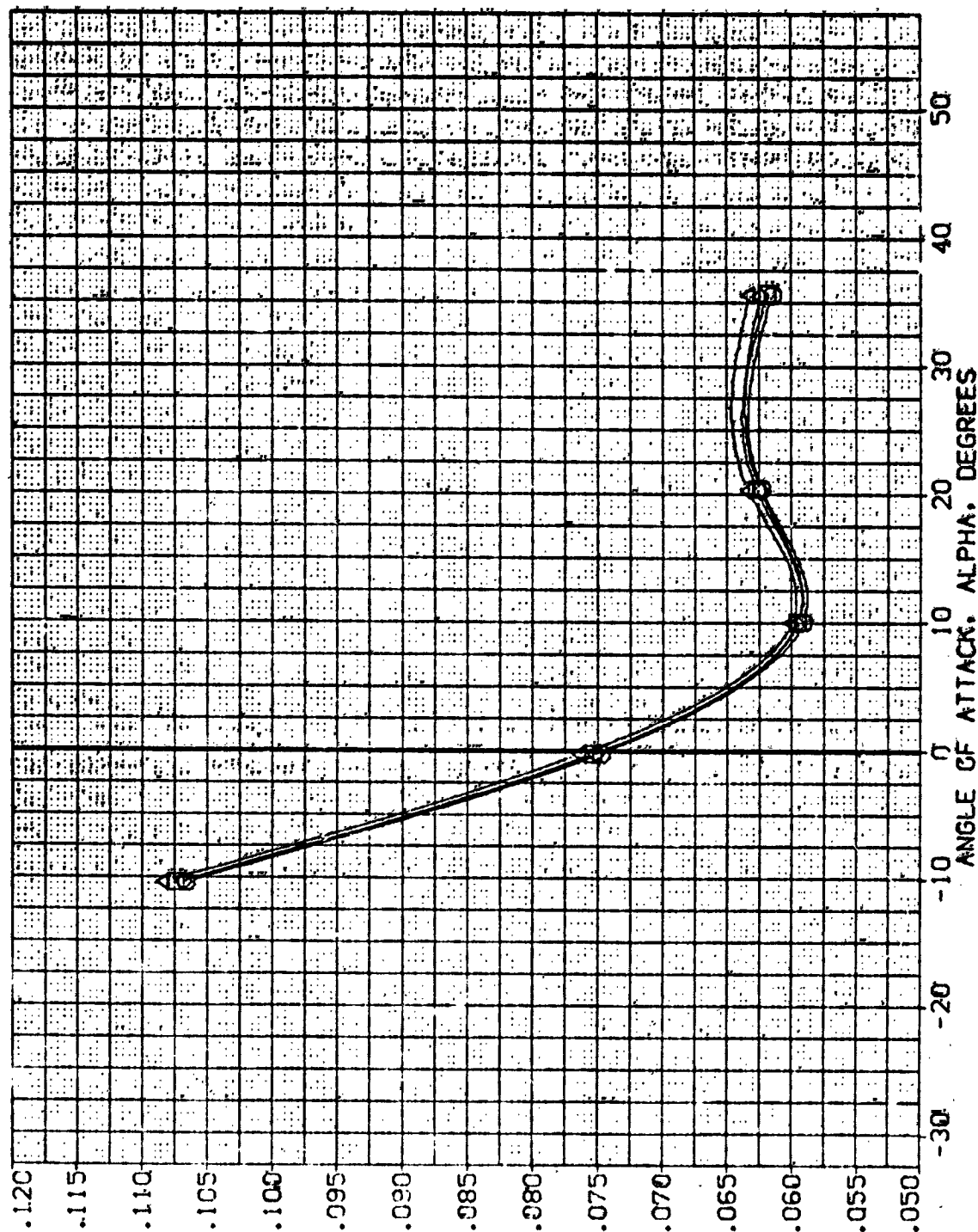


FIGURE 7. JET OFF AERO. ELEVON=0, BOFLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA	BDELAP	BETA	REFERENCE IN. QUANTITY	SO. FT.
(RJ174)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	SREF	2650.0000
(RJ177)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	LREF	474.0000
(RJ215)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	BREF	936.0000
(RJ218)	LARC CFMT 118 (MA-22)	.000	.000	.000	.000	YMRP	1075.7000
						YMRP	0.0000
						ZMRP	395.0000
						SCALE	.0100

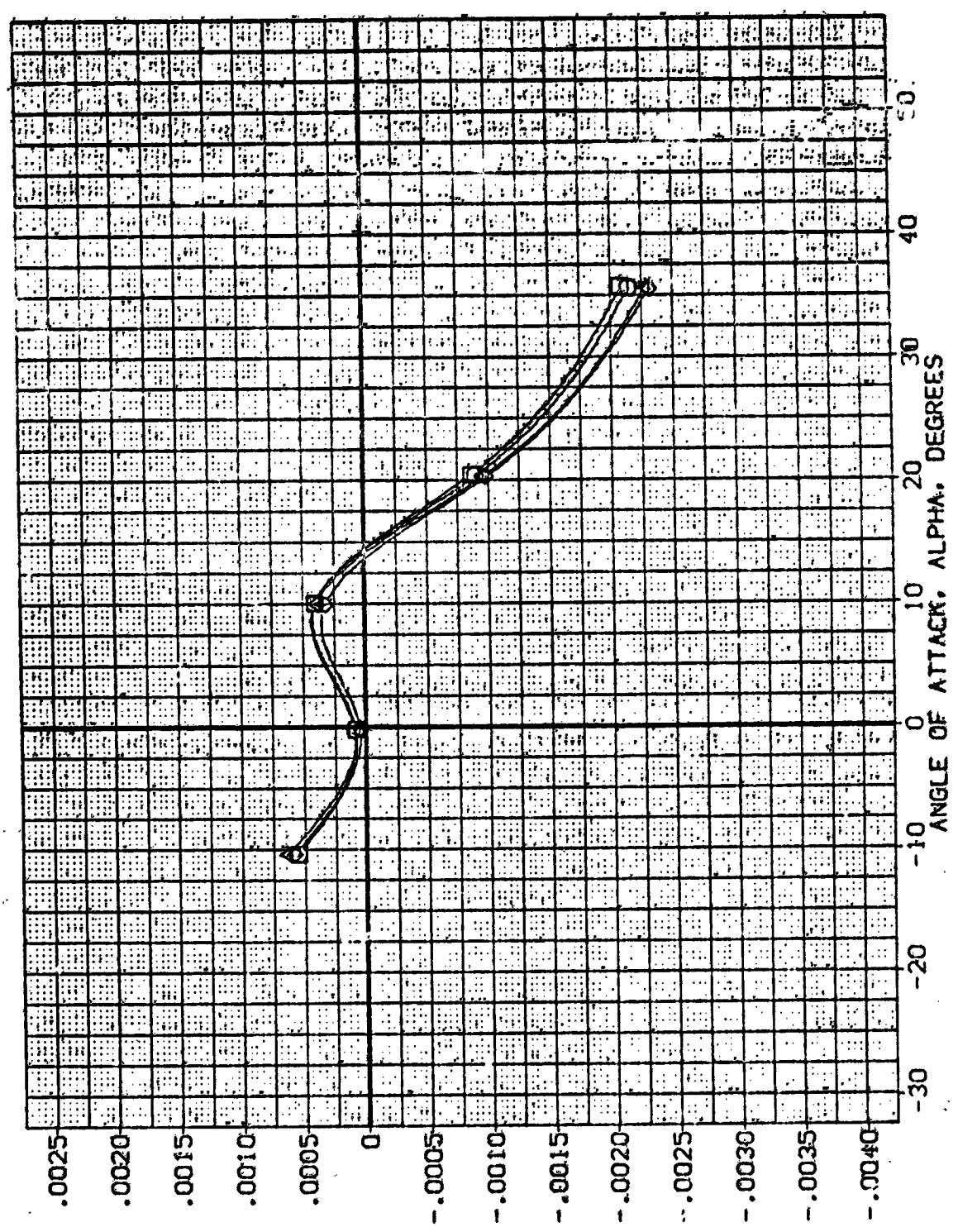


FIGURE 7. JET OFF AERO, ELEVON=0, BDELAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJN174) QIN82 LARC CFHT 118 (MA-22)
 (RJN177) QIN82 LARC CFHT 118 (MA-22)
 (RJN205) QIN83 LARC CFHT 118 (MA-22)
 (RJN218) QIN83 LARC CFHT 118 (MA-22)

ELEVON T/AO BDFLAP BETA
 .000 .000 .000
 .000 .000 .000
 .000 .000 .000
 .000 .000 .000

REFERENCE INFORMATION
 SREF 2650.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. 20
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE

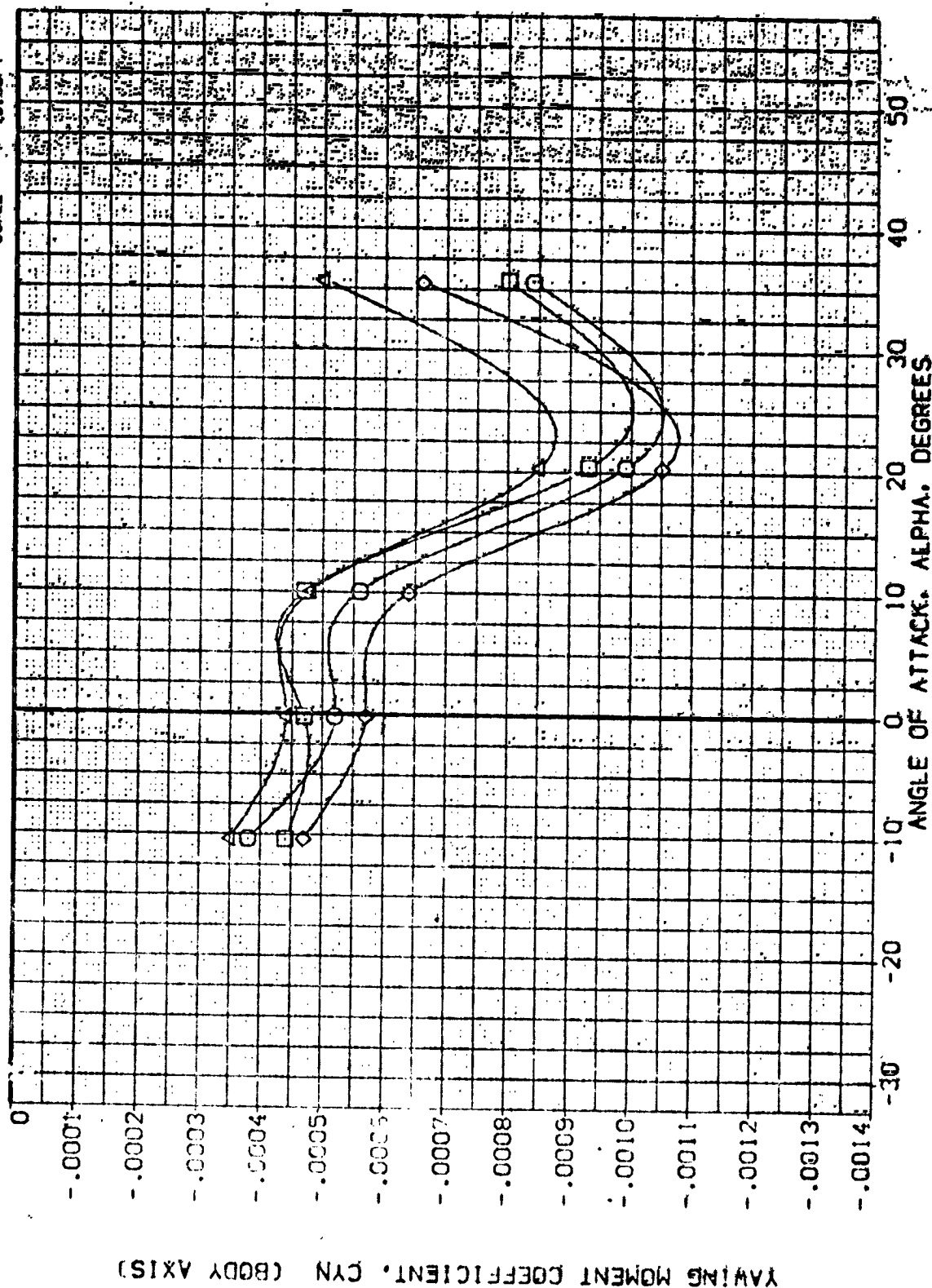


FIGURE 7. JET OFF AERO, ELEVON=0, BDFLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJA174) QIN82 LARC CFMT 118 (MA-22)
 (RJA177) QIN82 LARC CFMT 118 (MA-22)
 (RJA215) QIN83 LARC CFMT 118 (MA-22)
 (RJA218) QIN83 LARC CFMT 118 (MA-22)

ELEVON $\delta/\delta A$ BDFLAP BETA REFERENCE INFORMATION
 .000 .000 .000 SREF 2650.0000 SQ. FT.
 .000 .000 .000 LREF 474.8000 INCHES
 .000 .000 .000 BREF 935.6800 INCHES
 .000 .000 .000 XMRP 1075.2000 IN. X0
 .000 .000 .000 YMRP 375.0000 IN. Y0
 .000 .000 .000 ZMRP 0.0000 IN. Z0
 SCALE .0100

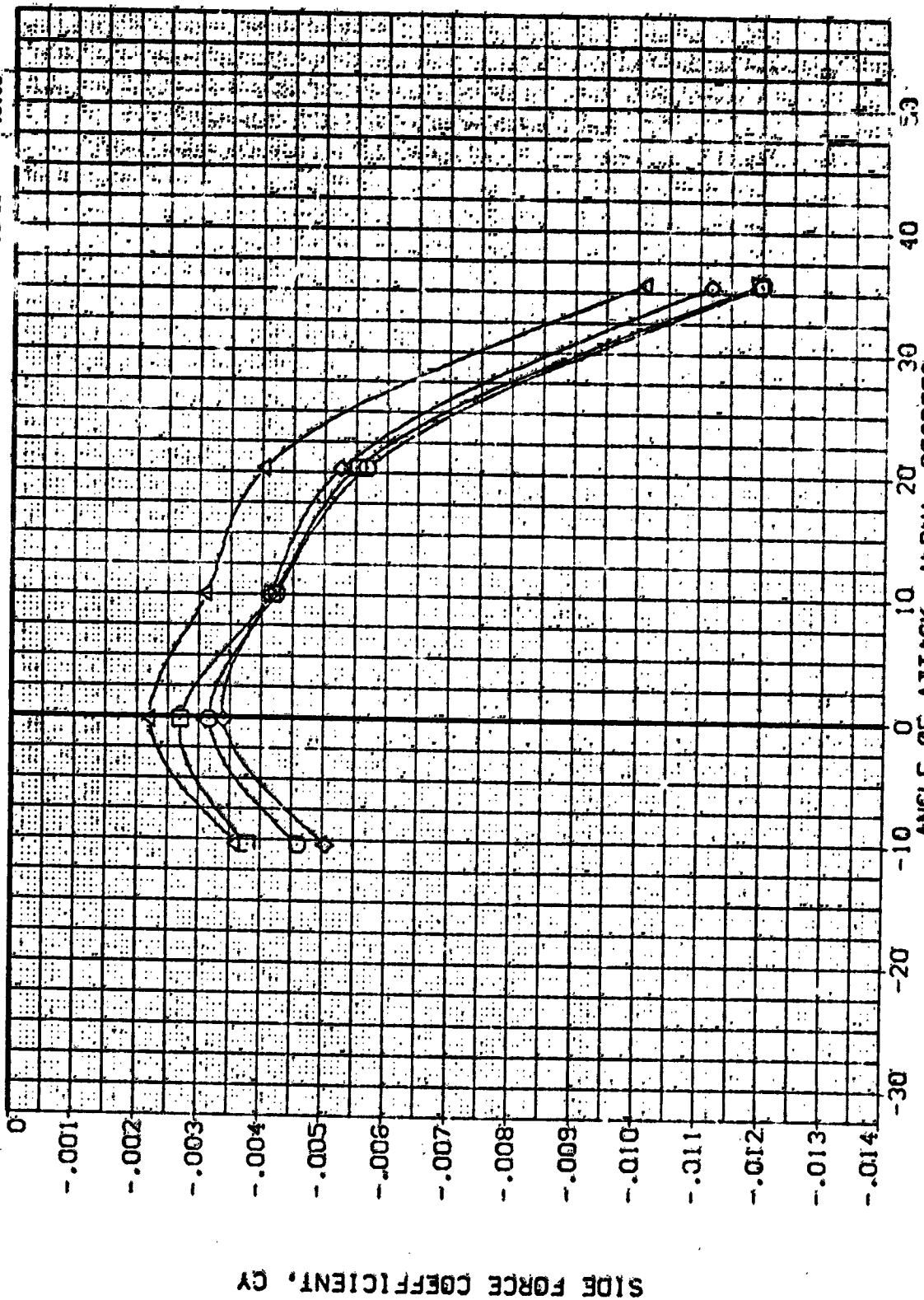


FIGURE 7. JET OFF AERO, ELEVON=0, BDFLAP=0, BETA=0

(M)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	TWO	BOFLAP	BETA	REFERENCE INFORMATION
(P3A031)	LARC CPHT 118 (MA-22)	-30.000	.000	.000	.000	SREF 2690.0000
(P3A054)	LARC CPHT 118 (MA-22)	-30.000	.000	.000	.000	LREF 474.6000
(P3A083)	LARC CPHT 118 (MA-22)	-30.000	.000	.000	.000	BREF 936.6000
(P3A084)	LARC CPHT 118 (MA-22)	-30.000	.000	.000	.000	XREF 1078.7000
(P3A085)	LARC CPHT 118 (MA-22)	-30.000	.000	.000	.000	YREF .0000
(P3A086)	LARC CPHT 118 (MA-22)	-30.000	.000	.000	.000	ZREF .0000
(P3A087)	LARC CPHT 118 (MA-22)	-30.000	.000	.000	.000	SCALE .0100

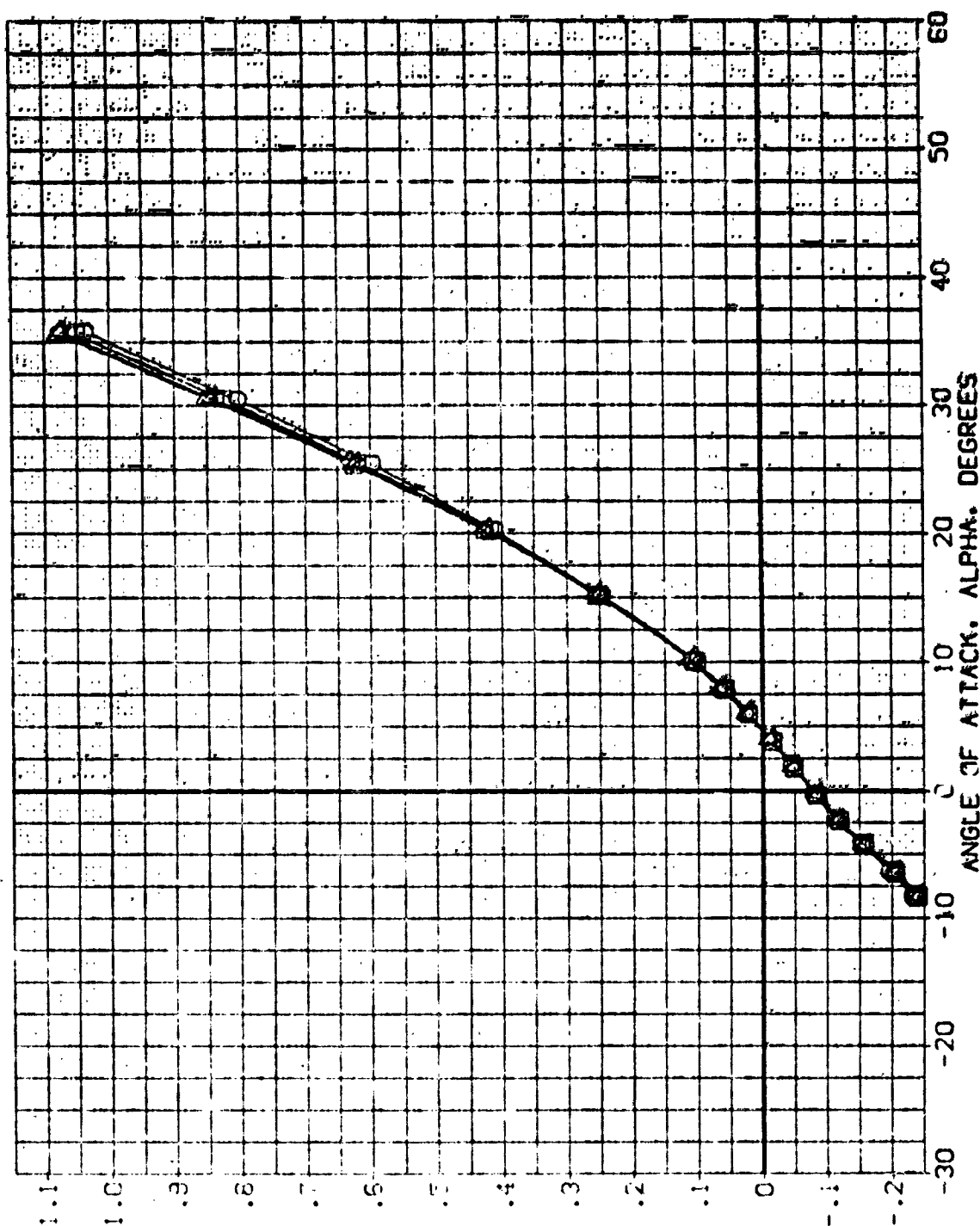


FIGURE 8. JET OFF AERO, ELEVON=-30, BOFLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RJA031)	Q1N78M78	LARC CFHT 118 (MA-22)
(RJA034)	Q1N78	LARC CFHT 118 (MA-22)
(RJA294)	Q1N83	LARC CFHT 118 (MA-22)
(RJA307)	Q1N84	LARC CFHT 118 (MA-22)
(RJA308)	Q1N85	LARC CFHT 118 (MA-22)
(RJA317)	Q1N51	LARC CFHT 118 (MA-22)

ELEVON T/OA BOFLAP BETA REFERENCE INFORMATION

-30.009	.000	.000	SREF	2690.0000	50.00
-30.000	.000	.000	LREF	674.0000	100.00
-30.000	.000	.000	BREF	935.0000	100.00
-30.000	.000	.000	XPREF	1076.0000	100.00
-30.000	.000	.000	YMPREF	175.0000	100.00
-30.000	.000	.000	ZMPREF	175.0000	100.00
-30.000	.000	.000	SCALE	.0100	

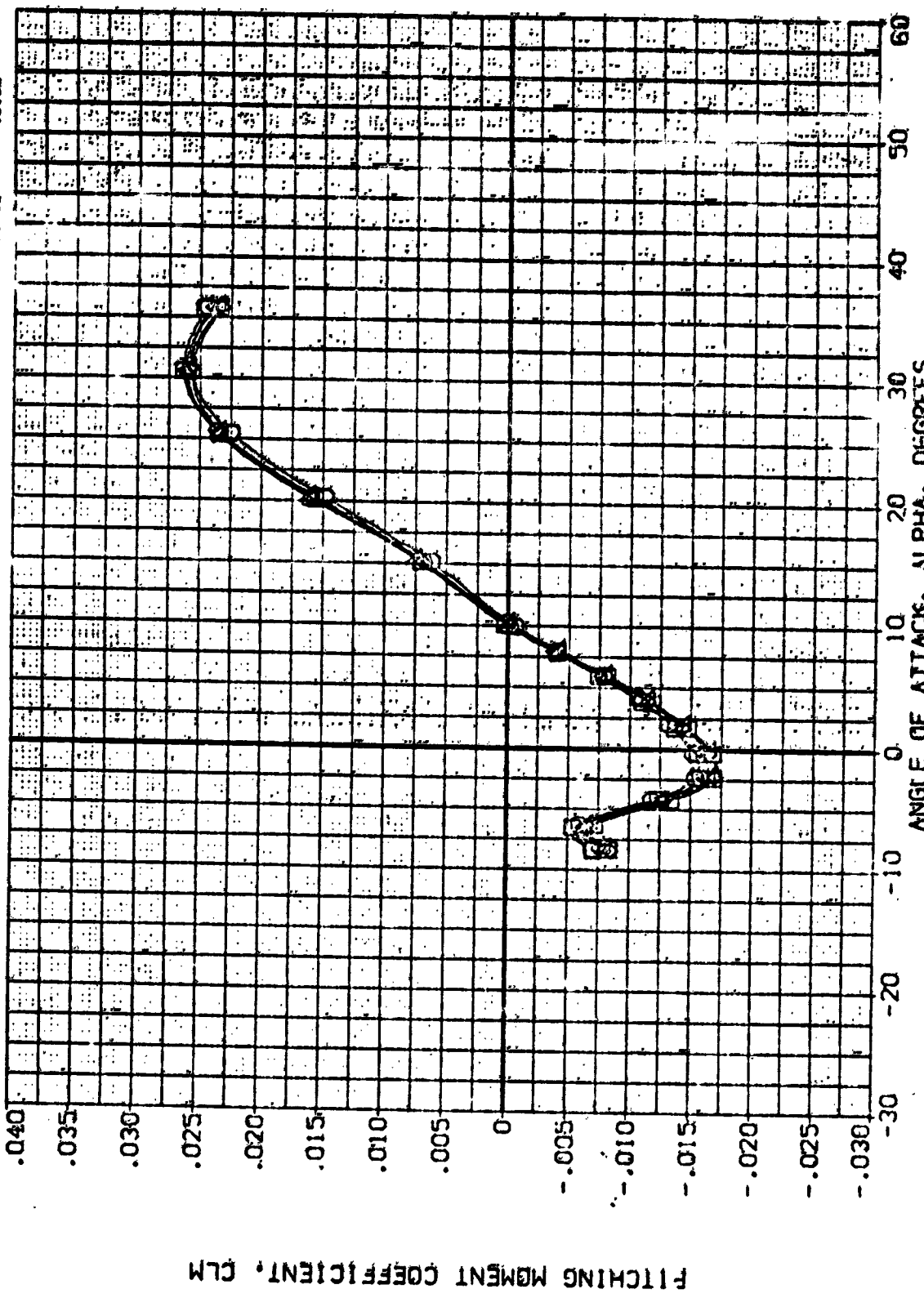


FIGURE 8. JET OFF AERO. ELEVON=-30. BOFLAP=Q. BETA=0
(MACH = 10.33)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(P40031)	01N09V78	LARC CFHT 118 (MA-221)
(P40054)	01N78	LARC CFHT 118 (MA-221)
(P40054)	01N78	LARC CFHT 118 (MA-221)
(P40054)	01N78	LARC CFHT 118 (MA-221)
(P40054)	01N78	LARC CFHT 118 (MA-221)
(P40054)	01N78	LARC CFHT 118 (MA-221)
(P40054)	01N78	LARC CFHT 118 (MA-221)
(P40054)	01N78	LARC CFHT 118 (MA-221)
(P40054)	01N78	LARC CFHT 118 (MA-221)
(P40054)	01N78	LARC CFHT 118 (MA-221)

REFERENCE INFORMATION

REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
SREF	LREF	BREF	YREF	ZREF	SCALE	ELEVON	T/OA	BDFLAP	BETA
2630.0000	474.8000	.000	.000	.000	.0100	-30.000	.000	.000	.000
474.8000	936.6800	.000	.000	.000	.0100	-30.000	.000	.000	.000
936.6800	1076.2000	.000	.000	.000	.0100	-30.000	.000	.000	.000
1076.2000	375.0000	.000	.000	.000	.0100	-30.000	.000	.000	.000
375.0000	SCALE					-30.000	.000	.000	.000

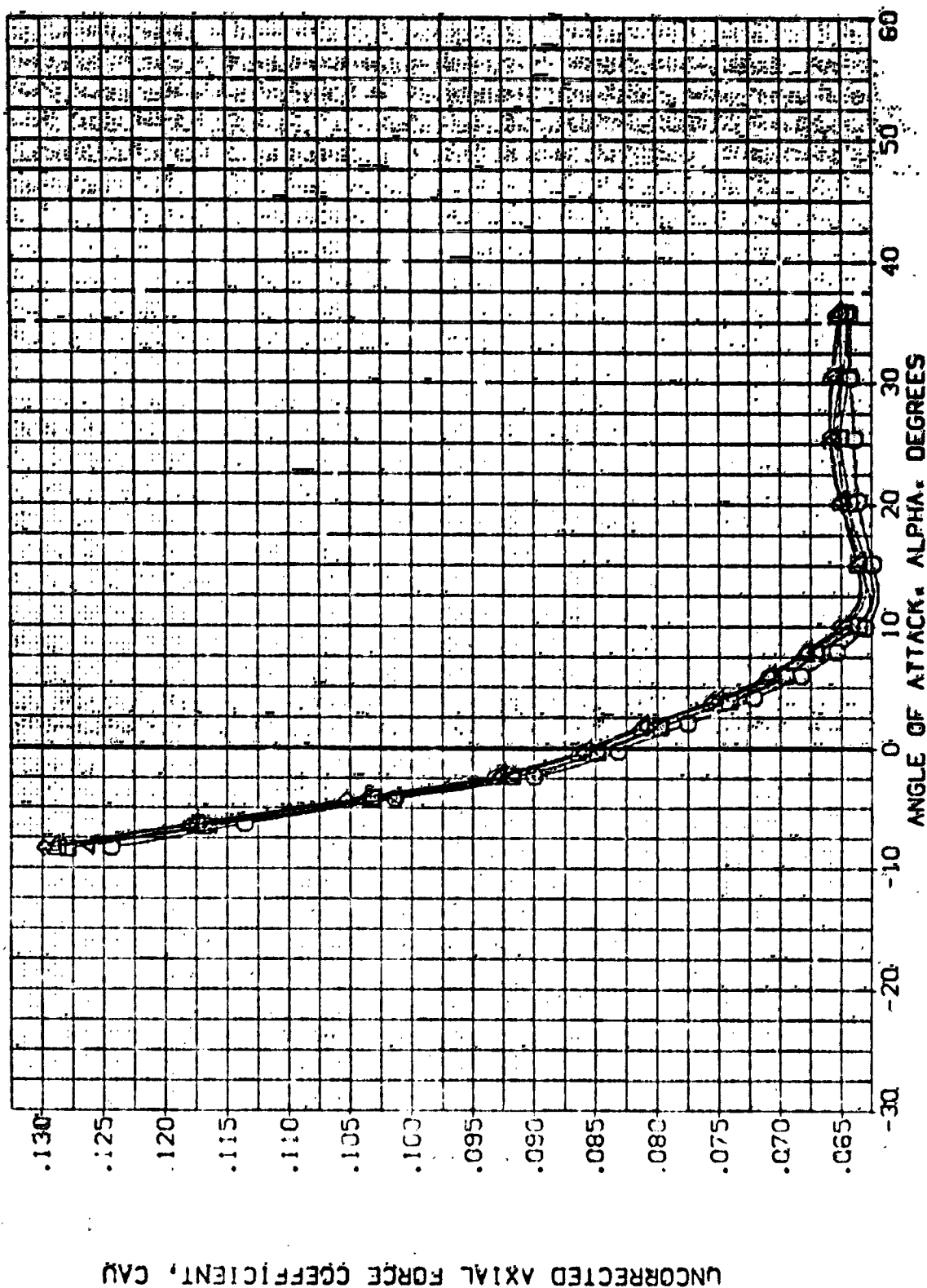


FIGURE 8. JET OFF AERO. ELEVON=-30, BDFLAP=0, BETA=0

CATMACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA	BDCLAP	BETA	REFERENCE INFORMATION
(RJA021)	01N79W78 LARC CPMT 118 (MA-221)	-30.000	.000	.000	.000	SRGF 2650.0000 IN. FT.
(RJA054)	01N78 LARC CPMT 118 (MA-221)	-30.000	.000	.000	.000	LREF 474.0000 IN. FT.
(RJA294)	01N83 LARC CPMT 118 (MA-221)	-30.000	.000	.000	.000	BREF 936.0000 IN. FT.
(RJA307)	01N84 LARC CPMT 118 (MA-221)	-30.000	.000	.000	.000	APRP 1076.0000 IN. FT.
(RJA308)	01N85 LARC CPMT 118 (MA-221)	-30.000	.000	.000	.000	VRFP 375.0000 IN. FT.
(RJA317)	01N81 LARC CPMT 118 (MA-221)	-30.000	.000	.000	.000	SCALE

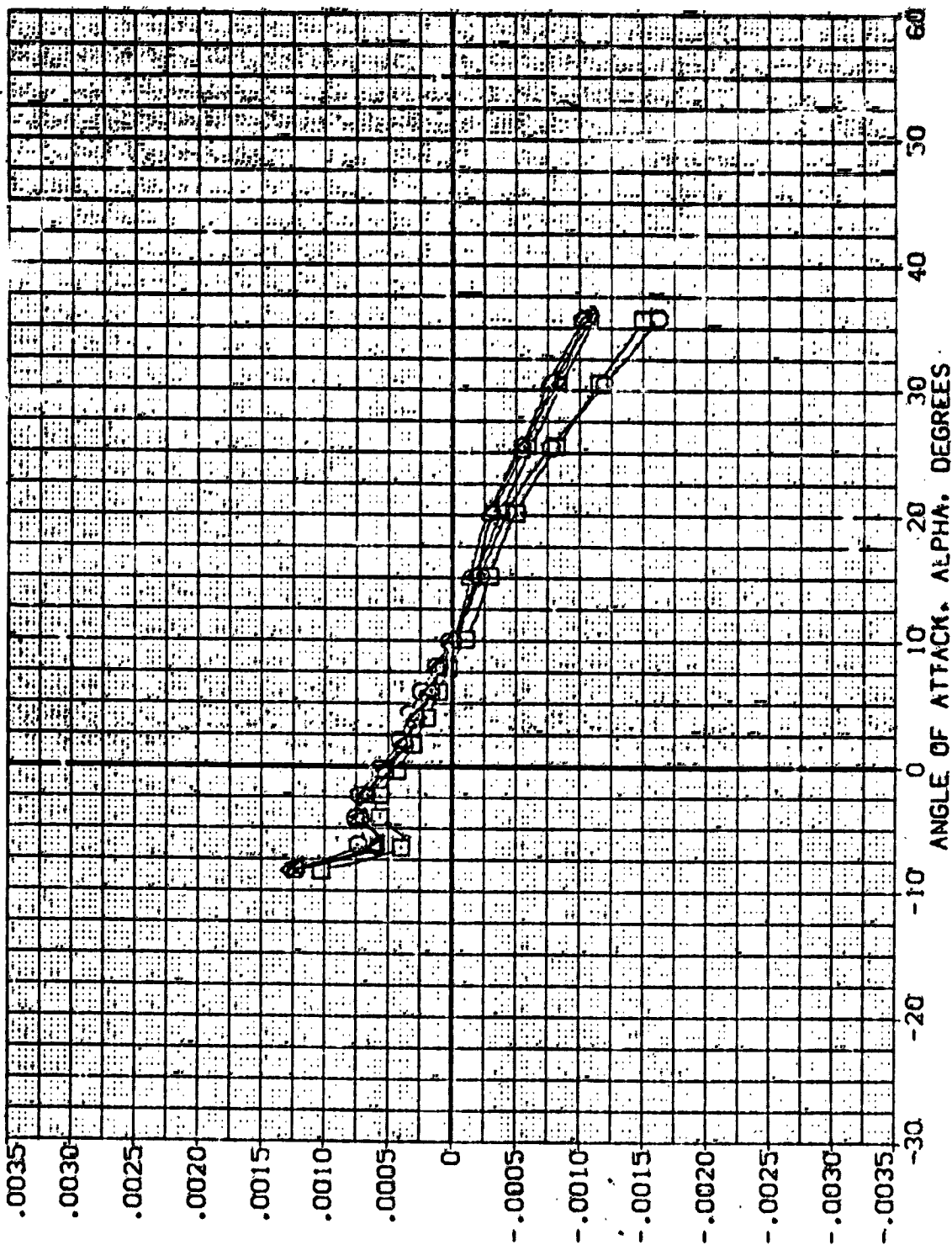


FIGURE 8. JET OFF AERO, ELEVON=-30, BDCLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA	80FLAP	BETA	REFERENCE INFORMATION
(RJAC34)	GIN79N78 LARC CFHT 118 (MA-22)	-30.000	.000	.000	.000	SREF 2690.0000 SQ.FT.
(RJAC34)	GIN78 LARC CFHT 118 (MA-22)	-30.000	.000	.000	.000	LREF 424.8000 INCHES
(RJAC34)	GIN83 LARC CFHT 118 (MA-22)	-30.000	.000	.000	.000	BREF 936.6000 INCHES
(RJAC30)	GIN84 LARC CFHT 118 (MA-22)	-30.000	.000	.000	.000	XPRP 1076.7000 IN. 18
(RJAC38)	GIN85 LARC CFHT 118 (MA-22)	-30.000	.000	.000	.000	YPRP 375.0000 IN. 10
(RJAC37)	GIN51 LARC CFHT 118 (MA-22)	-30.000	.000	.000	.000	ZPRP 375.0000 IN. 20
						SCALE .0100

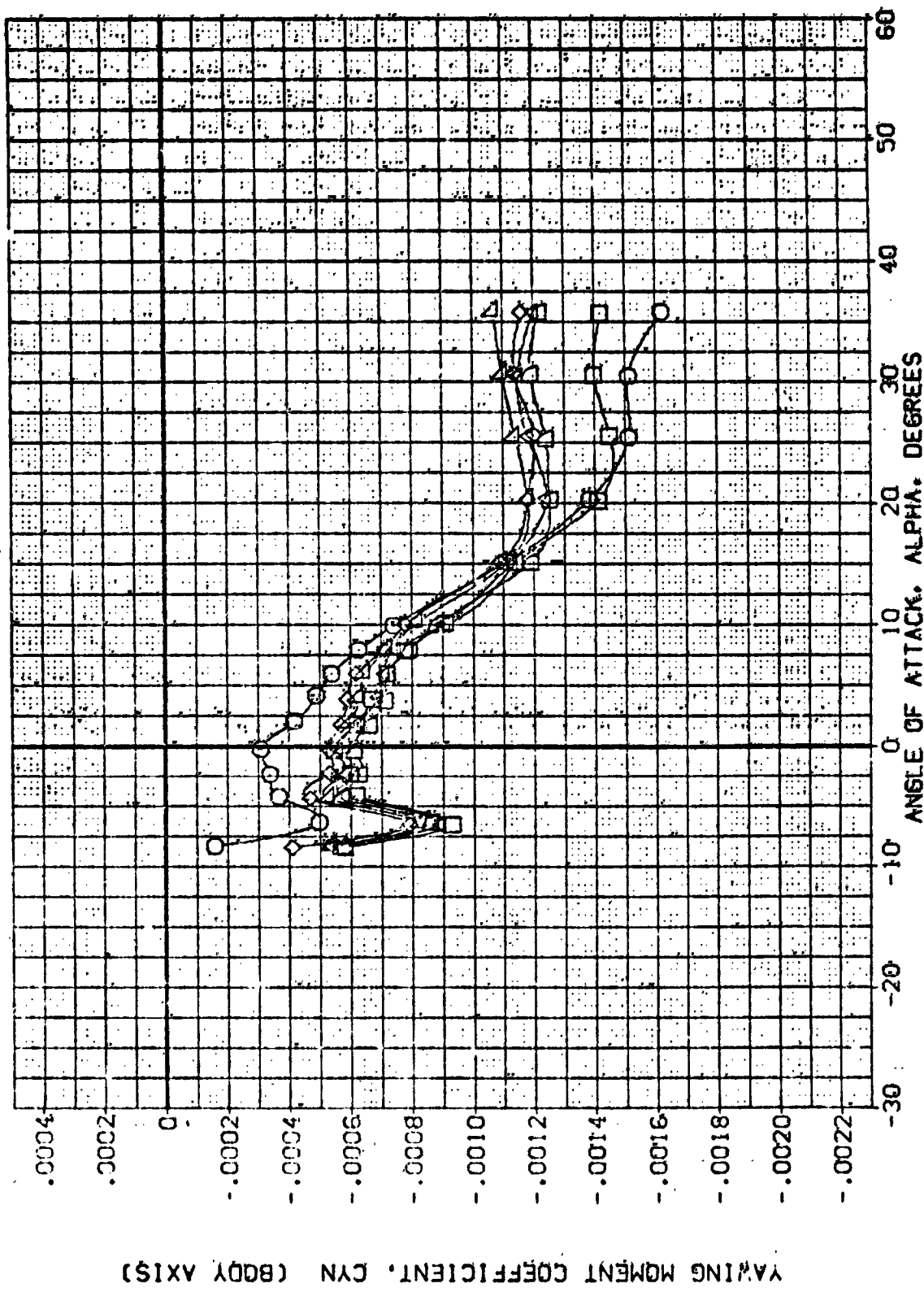


FIGURE 8. JET OFF AERO, ELEVON=-30, 80FLAP=0, BETA=0

(M)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RJA031)	QJN78	LARC CFMT 118 (MA-22)
(RJA054)	QJN78	LARC CFMT 118 (MA-22)
(RJA294)	QJN83	LARC CFMT 118 (MA-22)
(RJA367)	QJN84	LARC CFMT 118 (MA-22)
(RJA308)	QJN85	LARC CFMT 118 (MA-22)
(RJA317)	QJN51	LARC CFMT 118 (MA-22)

ELEVON T/OA BOFLAP BETA

-30.000	.000	.000	.000
-30.000	.000	.000	.000
-30.000	.000	.000	.000
-30.000	.000	.000	.000
-30.000	.000	.000	.000
-30.000	.000	.000	.000
-30.000	.000	.000	.000

REFERENCE INFORMATION

SPEC	2690.0000	50.00
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. KG
YMRP	.0000	IN. KG
ZMRP	375.6000	IN. KG
SCALE	.0100	

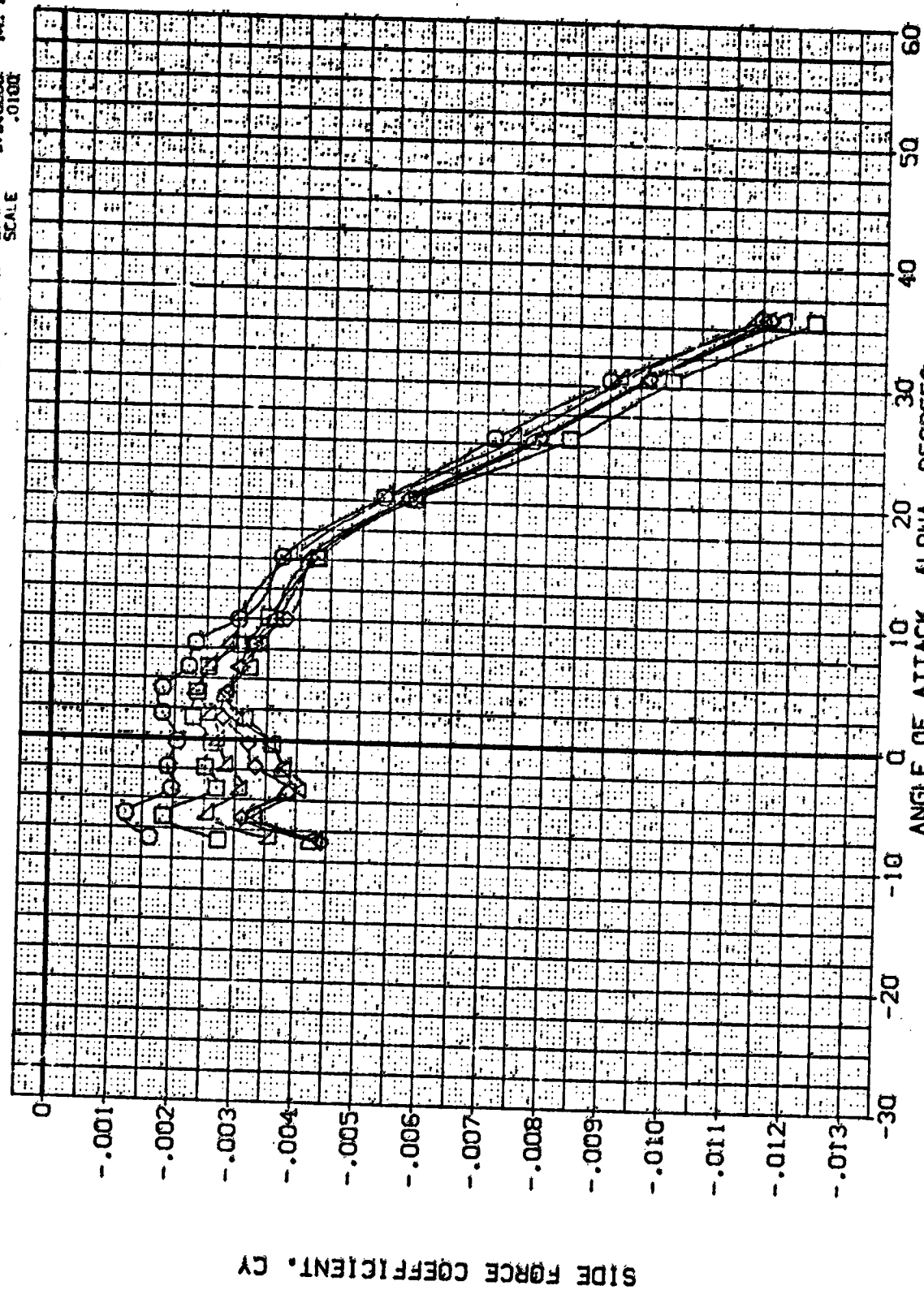


FIGURE 8. JET OFF AERO, ELEVON=-30, BOFLAP=0, BETA=0
(MACH = 10.33)

DATA SET SYMBOL: (RJAQ41)
 CONFIGURATION DESCRIPTION: LARC CPHI 118 (MA-22)
 LARC CFMT 118 (MA-22)

ELEVON: 10.000
 T/DA: .000
 BOFLAP: -14.250
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000
 LREF: 474.8000
 XMRP: 936.6800
 YMRP: 1076.7000
 ZMRP: .0000
 SCALE: 375.0000
 IN. YD
 IN. ZD

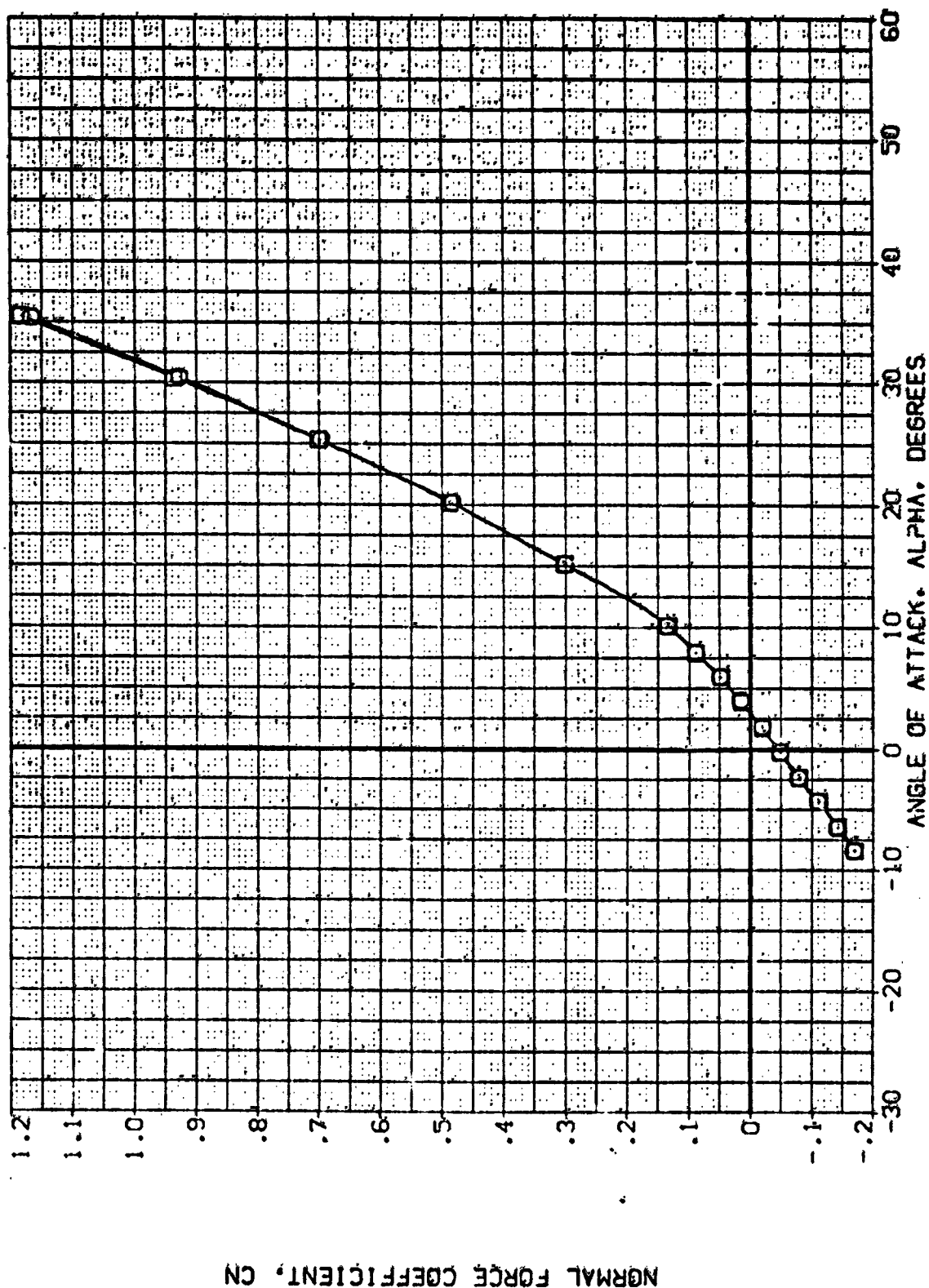


FIGURE 9. JET OFF AERO, ELEVON=10, BOFLAP=-14.25, BETA=0
 MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA	BDFLAP	BETA	REFERENCE INFORMATION
(RJ4011)	QJ4011 LARC CENT 118 (JA-22)	18.000	.008	-14.250	.000	SREF 2850.0000 SO.FT.
(RJ4050)	QJ4050 LARC CENT 118 (JA-22)	10.000	.000	-14.250	.000	LREF 474.8000 INCHES
						BREF 936.6800 INCHES
						XERP 1076.7000 IN. X0
						YERP .0000 IN. Y0
						ZERP 375.0000 IN. Z0
						SCALE .0100

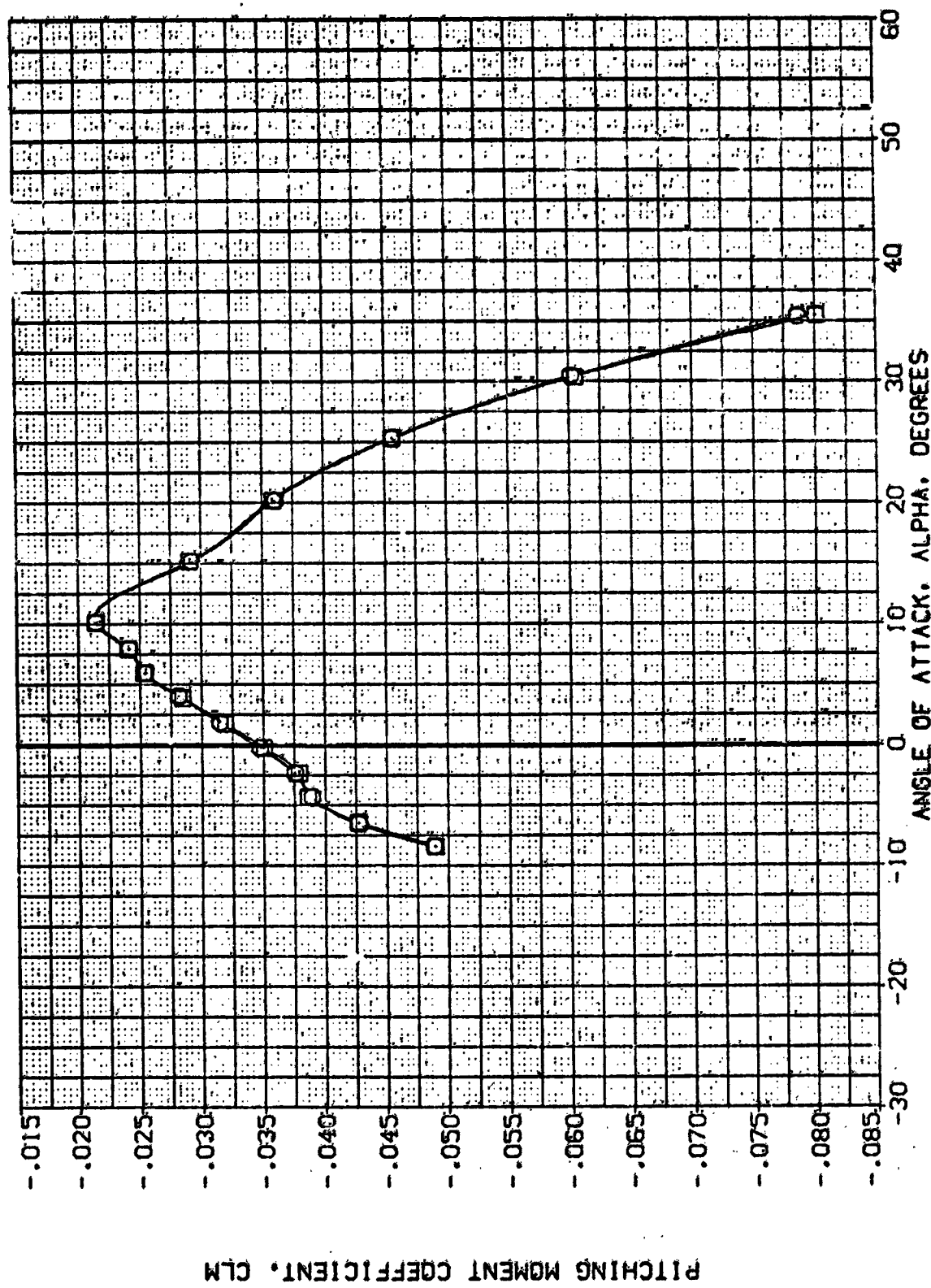


FIGURE 9. JET OFF AERO, ELEVON=10, BDFLAP=-14.25, BETA=0
 (AJMACH = 10.33)

DATA SET SYMBOL (RJ4041)
(RJ4050)

CONFIGURATION DESCRIPTION

OLNBS LARC CFHT 118 (NA-22)
GENBS LARC CFHT 118 (NA-22)

ELEVON 10.000
10.000
10.000

T/OA .000
.000
.000

BDFLAP .080
-14.250
.080

REFERENCE INFORMATION
SREF 2690.0000 50. FT.
LREF 474.8000 INCHES
BREF 938.8800 INCHES
XTRP 1076.7000 IN. X0
YTRP .0000 IN. Y0
ZTRP 395.0000 IN. Z0
SCALE .0100

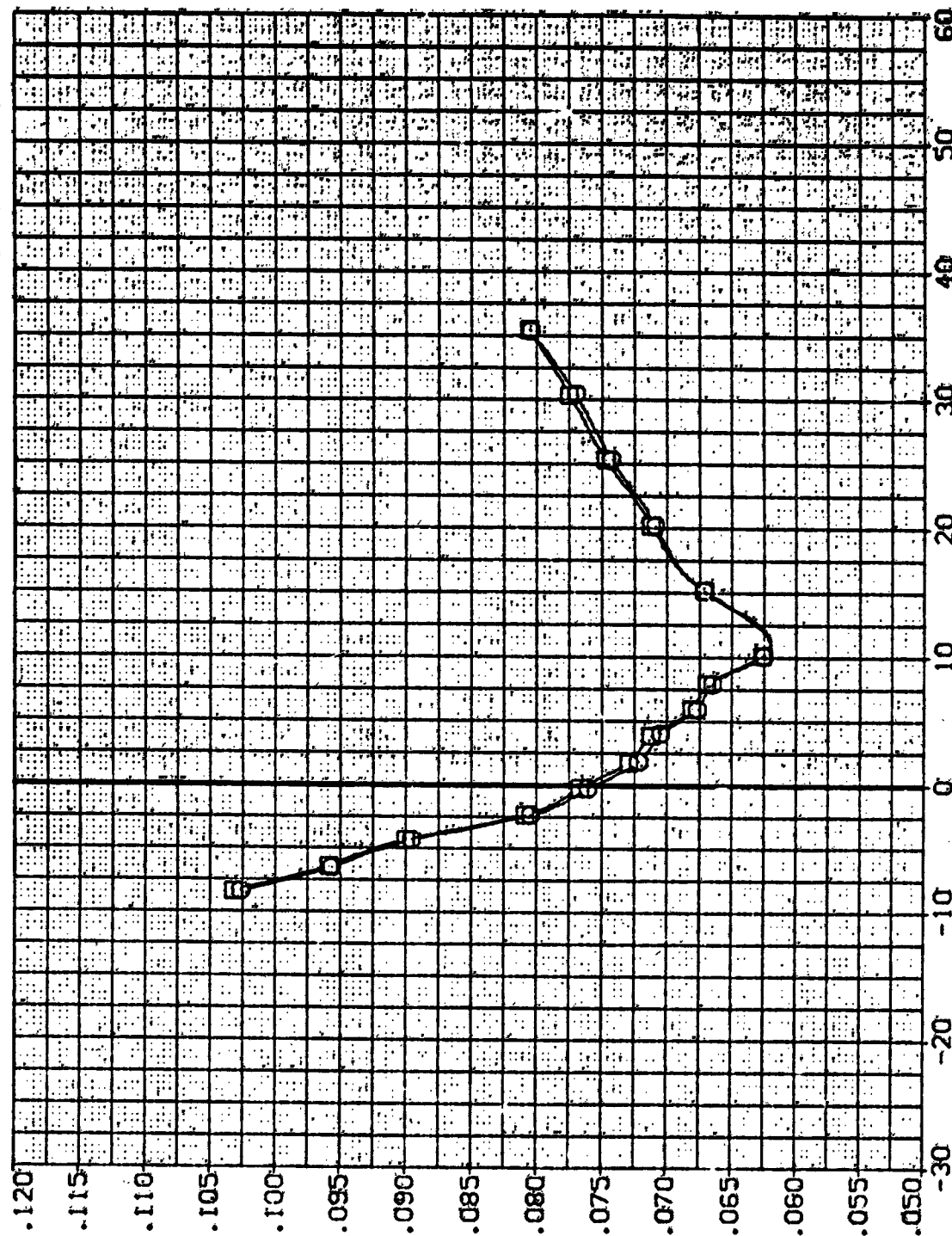


FIGURE 9. JET OFF AERO, ELEVON=10, BDFLAP=-14.25, BETA=0

(A)MACH = 10.33

(RJA041) 01A85 LARC CFHT 118 (MA-22)
(RJA050) 01A85 LARC CFHT 118 (MA-22)

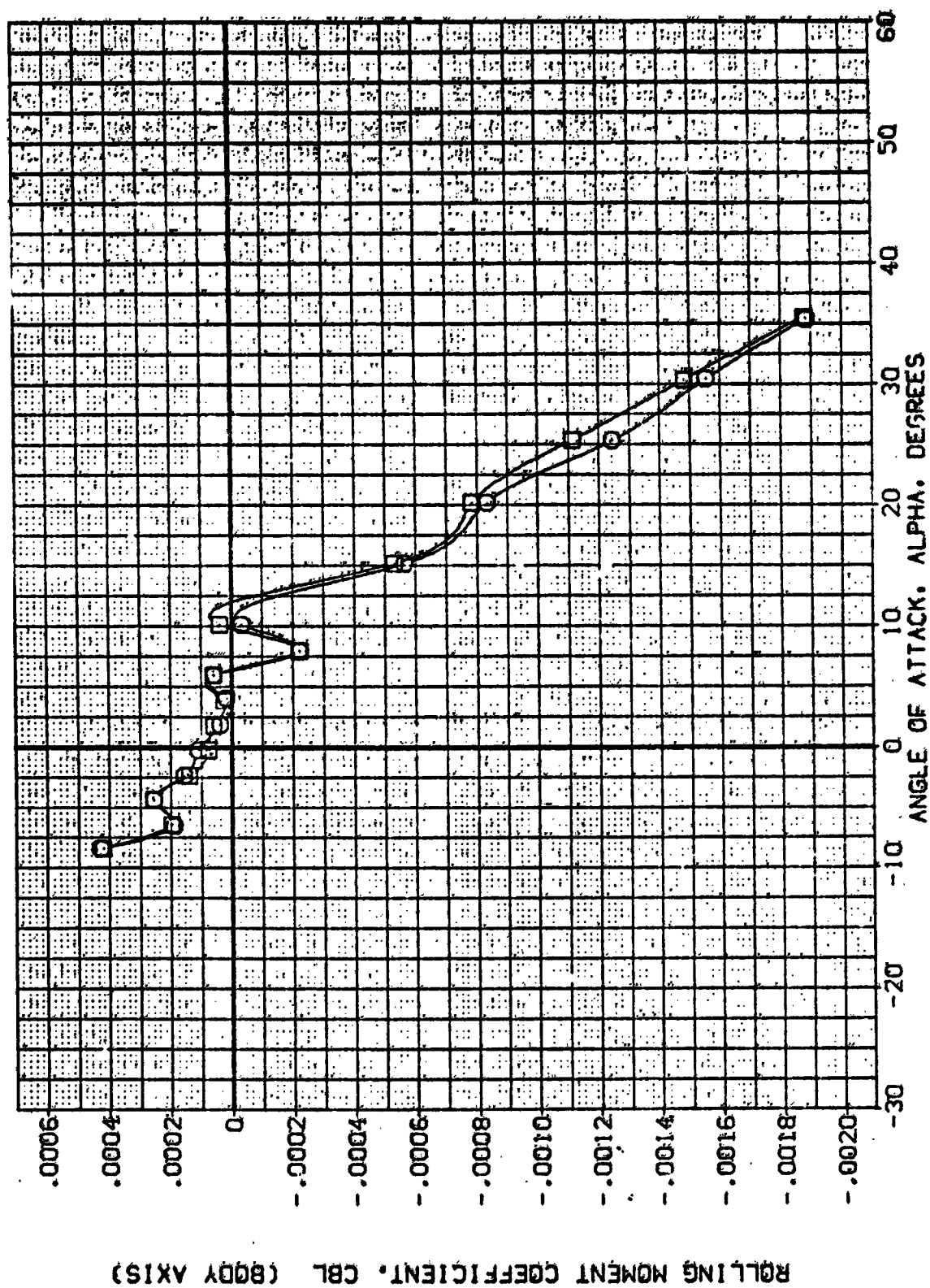


FIGURE 9. JET OFF AERO, ELEVON=10, BOFLAP=-14.25, BETA=0
(A)MACH = 10.33

DATA SET SYMBOL: 01N85
 (RJA041) LARC CPHF 118 (MA-22)
 (RJA050) LARC CPHF 118 (MA-22)

ELEVON T/GA BDFLAP BETA
 10.000 .000 -14.250 .000
 10.000 .000 -14.250 .000

REFERENCE INFORMATION
 SREF 2690.0000 SO.FT.
 LREF 474.8800 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. YD
 YMRP .0000 IN. YD
 ZMRP 375.0000 IN. YD
 SCALE .0100

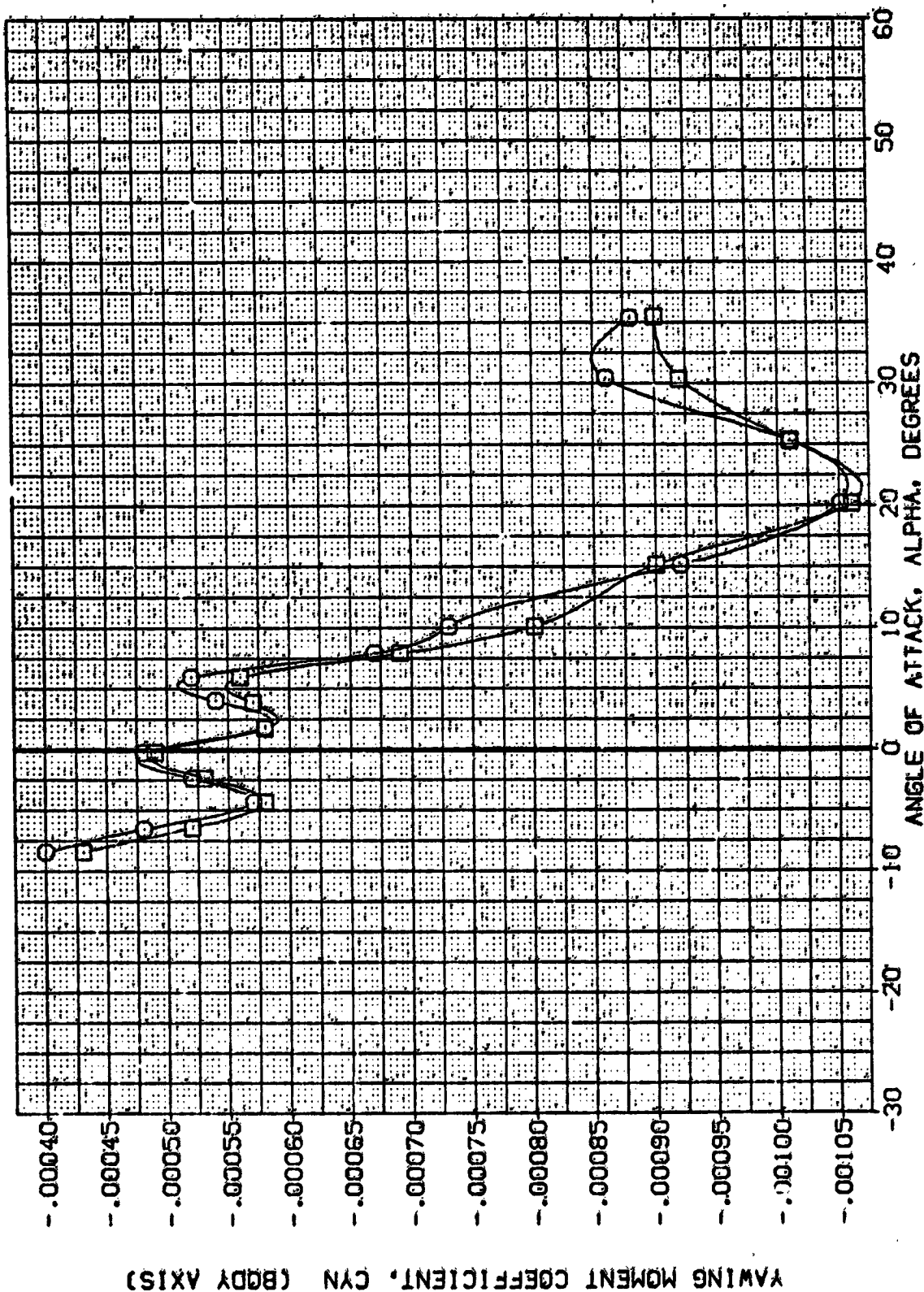


FIGURE 9. JET OFF AERO, ELEVON=10, BDFLAP=-14.25, BETA=0

(A)MACH = 10.33

SREF	2690.0000	50 FT.
REF	474.8000	INCHES
BREF	936.6800	INCHES
WRAP	1076.7000	IN. X0
WRAP	.0000	IN. Y0
WRAP	375.0000	IN. Z0
SCALE	.0100	

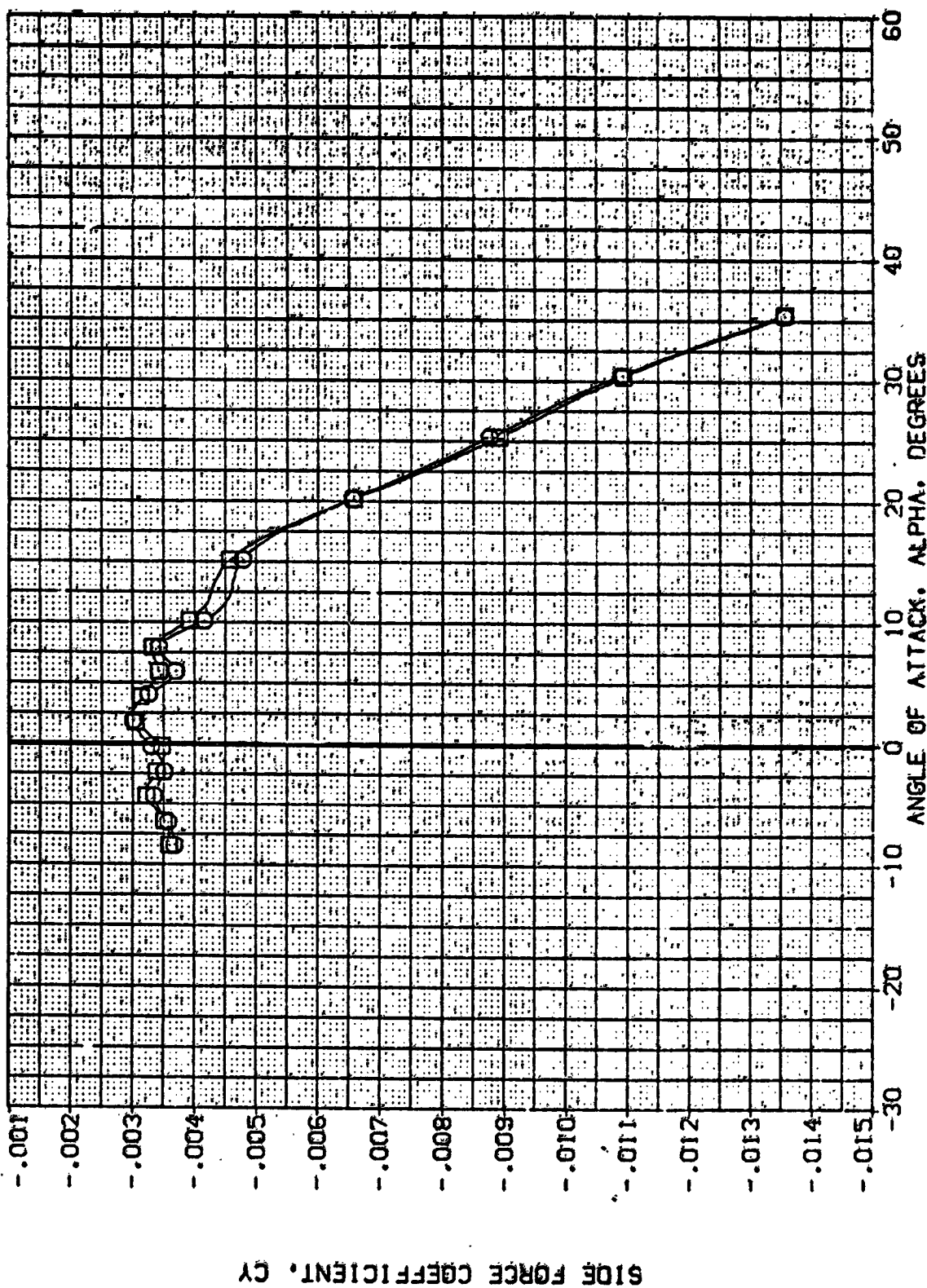


FIGURE 9. JET OFF AERO, ELEVON=10, BOFLAP=-14.25, BETA=0

(A)MACH. = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJ404S) 01R75N78 LARC CFHT 118 (MA-22)
 (RJ4049) 01N85 LARC CFHT 118 (MA-22)
 (RJ4342) 01N83 LARC CFHT 118 (MA-22)
 (RJ4344) 01N83 LARC CFHT 118 (MA-22)

ELEVON TADA BOFLAP BETA REFERENCE INFORMATION
 10.000 .008 13.750 .000 SREF 2690.0000 50.00
 10.000 .000 13.750 .000 LREF 474.8000 INCHES
 10.000 .008 13.750 .008 BRPF 936.6800 INCHES
 10.000 .008 13.750 .008 YMRP 1076.7000 IN. X0
 YMRP 375.0000 IN. Y0
 SCALE .0100

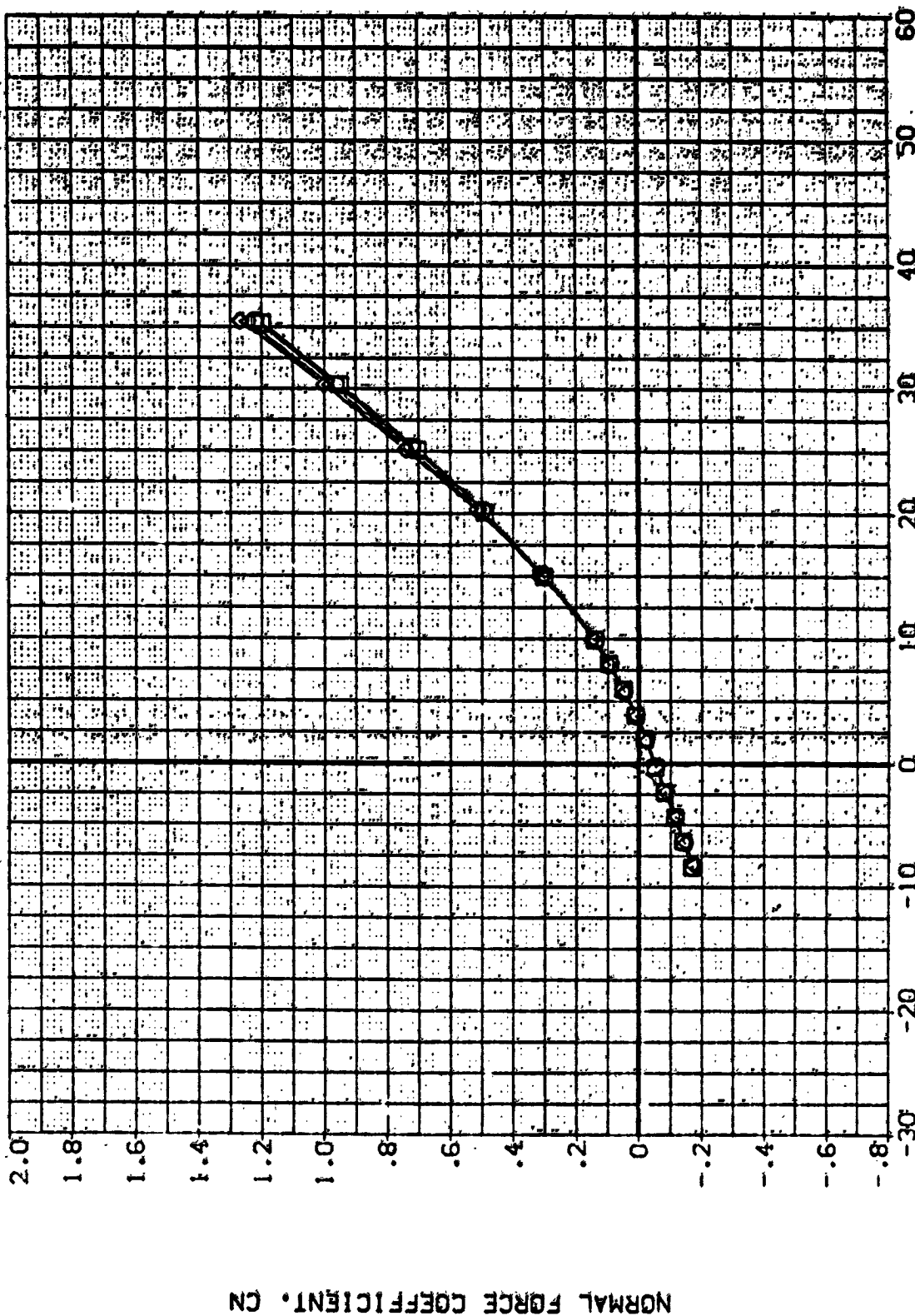


FIGURE 10. JET OFF AERO. ELEVON=10, BOFLAP= 13.75, BETA=0

(A)MACH = 10.33

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 95. **THE**
 96. **THE**
 97. **THE**
 98. **THE**
 99. **THE**
 100. **THE**

Q1N79N26	LARC	CFHT	118	QMA-221
Q1N85	LARC	CFHT	118	QMA-221
Q1N83	LARC	CFHT	118	QMA-221
Q1N83	LARC	CFHT	118	QMA-221

ELEVATION	T/OX	BOFLAP	GET4	REFERENCE INFORMATION			
16.000	.000	11.750	.000	SREF	2630.0000	50.512	INCHES
10.000	.000	11.750	.000	LREF	474.0000	50.512	INCHES
10.000	.000	11.750	.000	BREF	936.6800	50.512	INCHES
10.000	.000	11.750	.000	XREF	1076.7000	50.512	INCHES
				YREF	.0000	50.512	INCHES
				ZREF	375.0000	50.512	INCHES
				SCALE	1.0100		

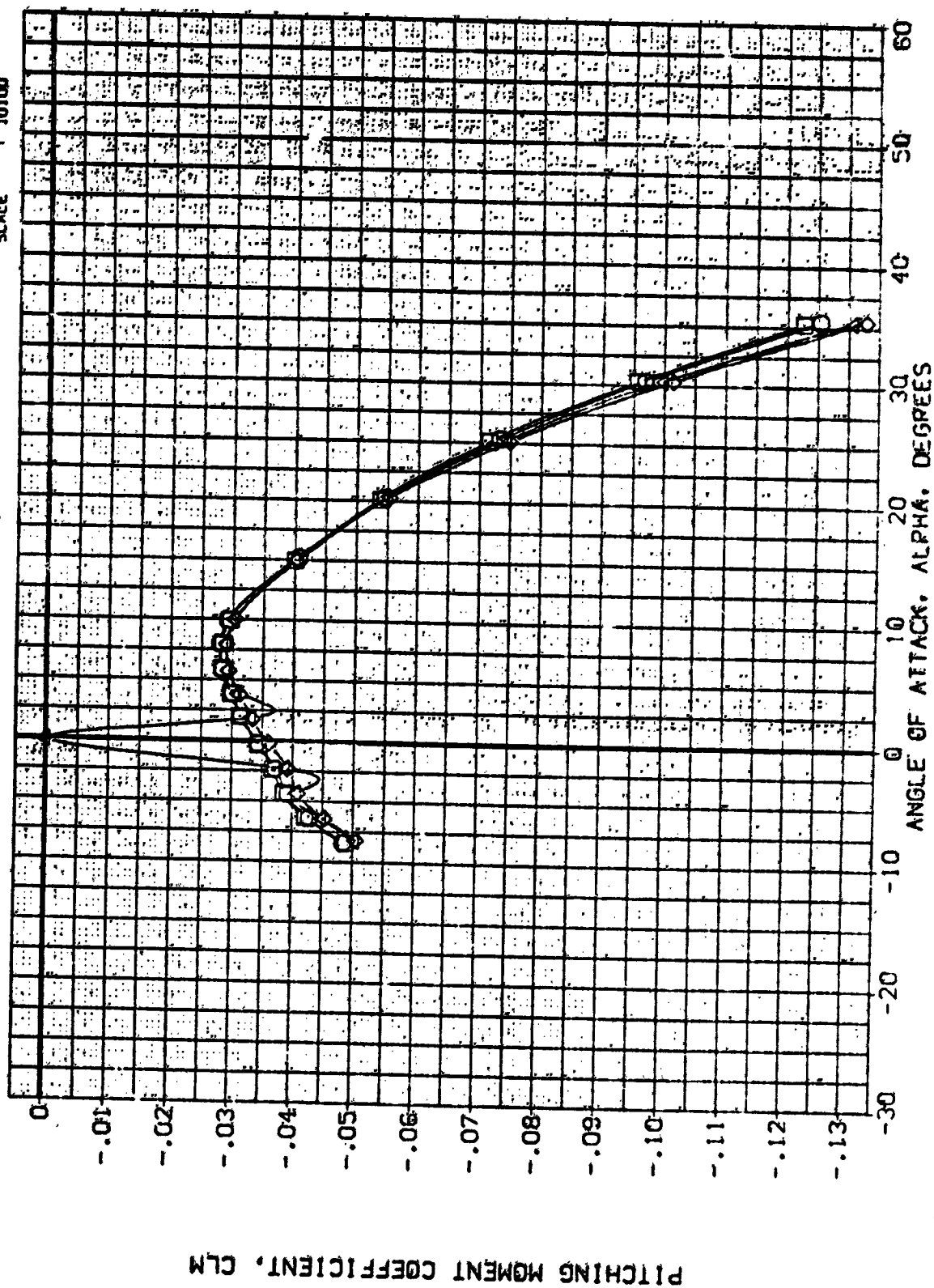


FIGURE 10. JET OFF AERO, ELEVON=10, BDFLAP= 13.75, BETA=0

$$[A]_{MACH} = 10.33$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJAS1) QIN79N78 LARC CFHT 118 (MA-22)
 (RJAS2) QIN85 LARC CFHT 118 (MA-22)
 (RJAS3) QIN83 LARC CFHT 118 (MA-22)
 (RJAS4) QIN83 LARC CFHT 118 (MA-22)

ELEVON TQA BDFLAP BETA
 10.000 .000 13.750 .000
 10.000 .000 13.750 .000
 10.000 .000 13.750 .000

REFERENCE INFORMATION
 SREF 2697.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 956.6800 INCHES
 XMRP 1076.7300 IN. 10
 YMRP .0000 IN. 10
 ZMRP 375.0000 IN. 10
 SCALE .0100

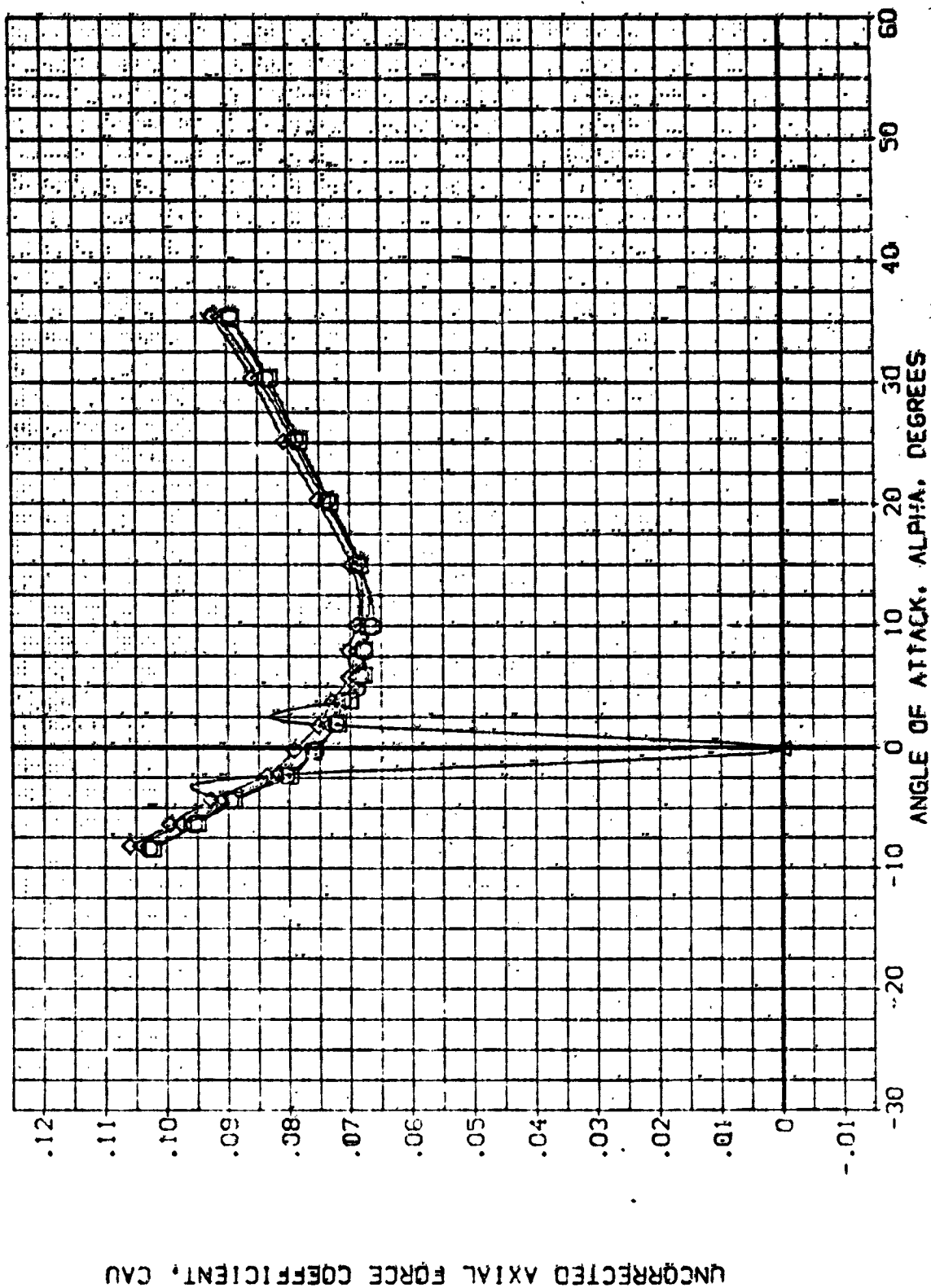


FIGURE 10. JET OFF AERO, ELEVON=10, BDFLAP=13.75, BETA=0
 (A)MACH = 10.33

TELEVISION	Y/OA	BSFLAP	LETA	REFERENCE INFORMATION	SQ. FT.
10.000	.000	13.750	.000	SEF	2600.0000
10.000	.000	13.750	.000	SEF	474.8000
10.000	.000	13.750	.000	SEF	375.6000
10.000	.000	13.750	.000	SEF	1076.7000
10.000	.000	13.750	.000	SEF	375.0000
10.000	.000	13.750	.000	SEF	3100.0000

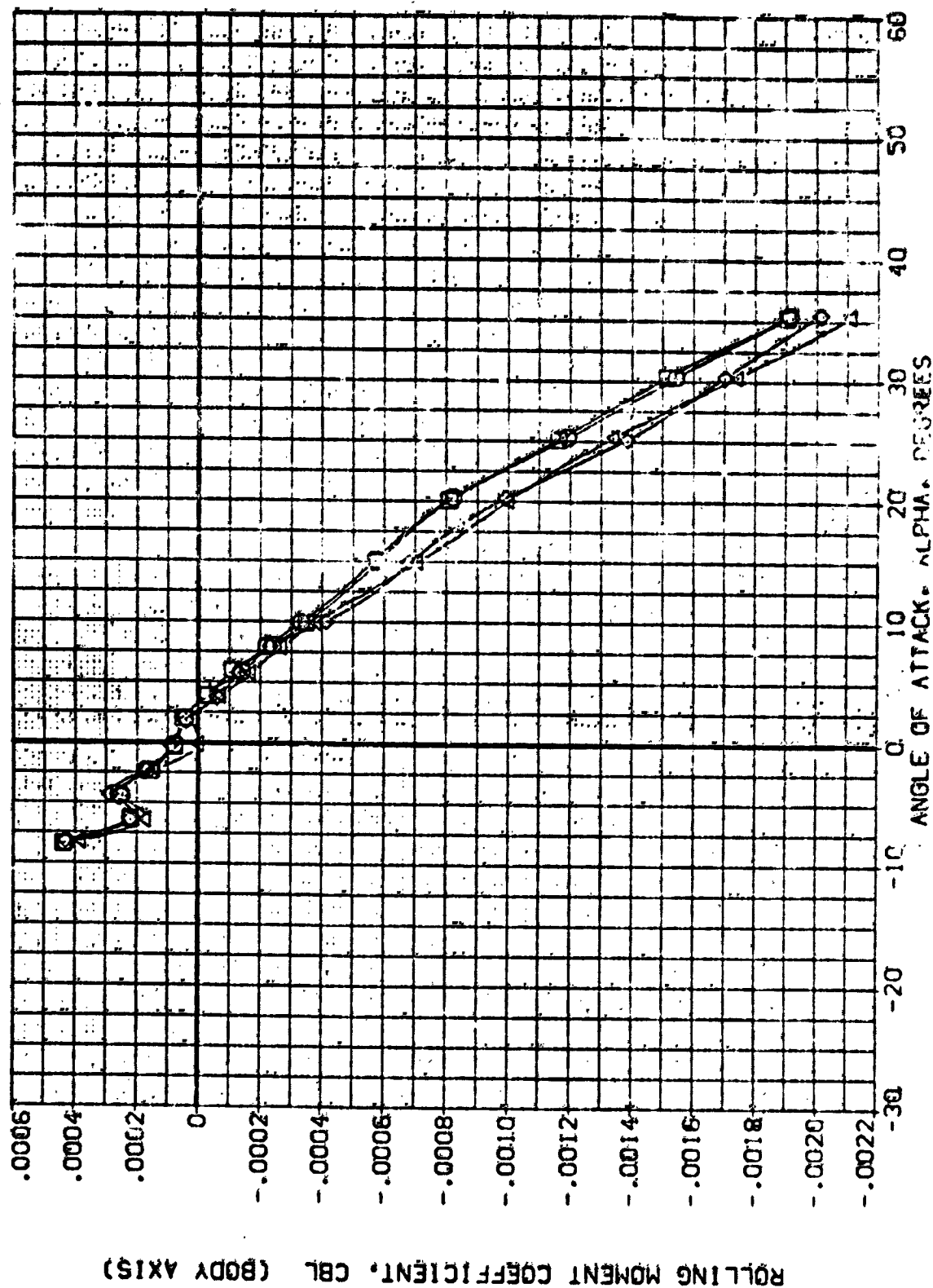


FIGURE 10. JET OFF AERO, ELEVON=10, BDFLAP= 13.75, BETA=0

$$(A)_{MACH} = 10.33$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

QJ0451	QJ0451	QJ0451	QJ0451	QJ0451
QJ0452	QJ0452	QJ0452	QJ0452	QJ0452
QJ0453	QJ0453	QJ0453	QJ0453	QJ0453
QJ0454	QJ0454	QJ0454	QJ0454	QJ0454

REFERENCE INFORMATION

SPR	2650.0000	SO. FT.
LRG	474.8000	INCHES
BRP	936.6800	INCHES
WSP	1076.2000	IN. LB
Z-SP	375.0000	IN. YD
SCALE	.0100	

ELEVON TAO BDFLAP BETA

10.000	.000	13.750	.000
10.000	.000	13.750	.000
10.000	.000	13.750	.000
10.000	.000	13.750	.000

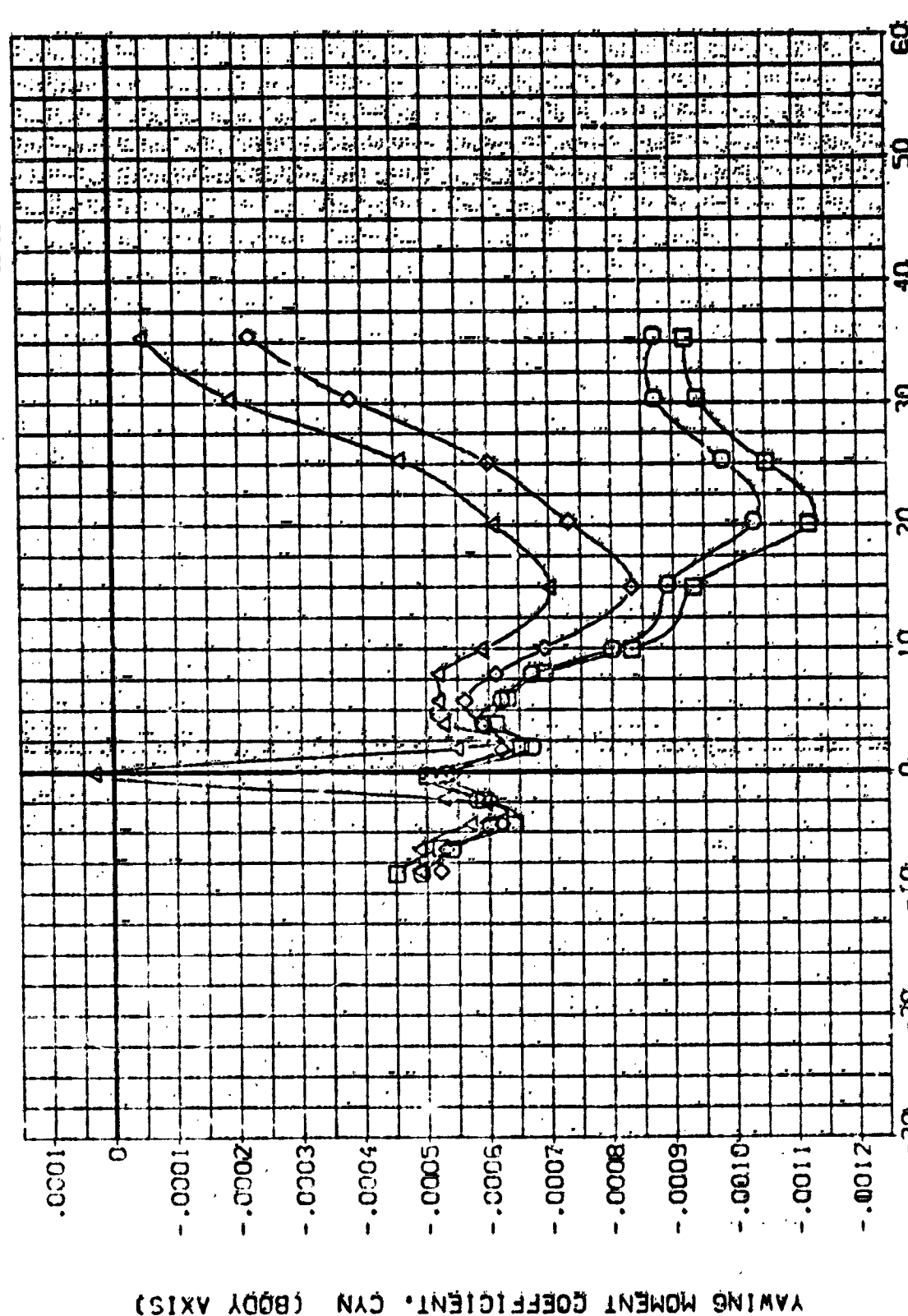


FIGURE 10. JET OFF AERO. ELEVON=10, BDFLAP=13.75, BETA=0

(A)MACH = 10.33

ELEVATION	YODA	JOSEAP	LEIA	REFERENCE INFORMATION	SO. FT.
12.000	.000	13.750	.000	VEF	2650.0000
10.000	.000	13.750	.000	LOGF	474.0000
10.000	.000	13.750	.000	BRF	9.5.6900
10.000	.000	13.750	.000	WSP	1075.7000
10.000	.000	13.750	.000	WSP	0.0000
				ZPSP	375.0000
				SCALE	.0100

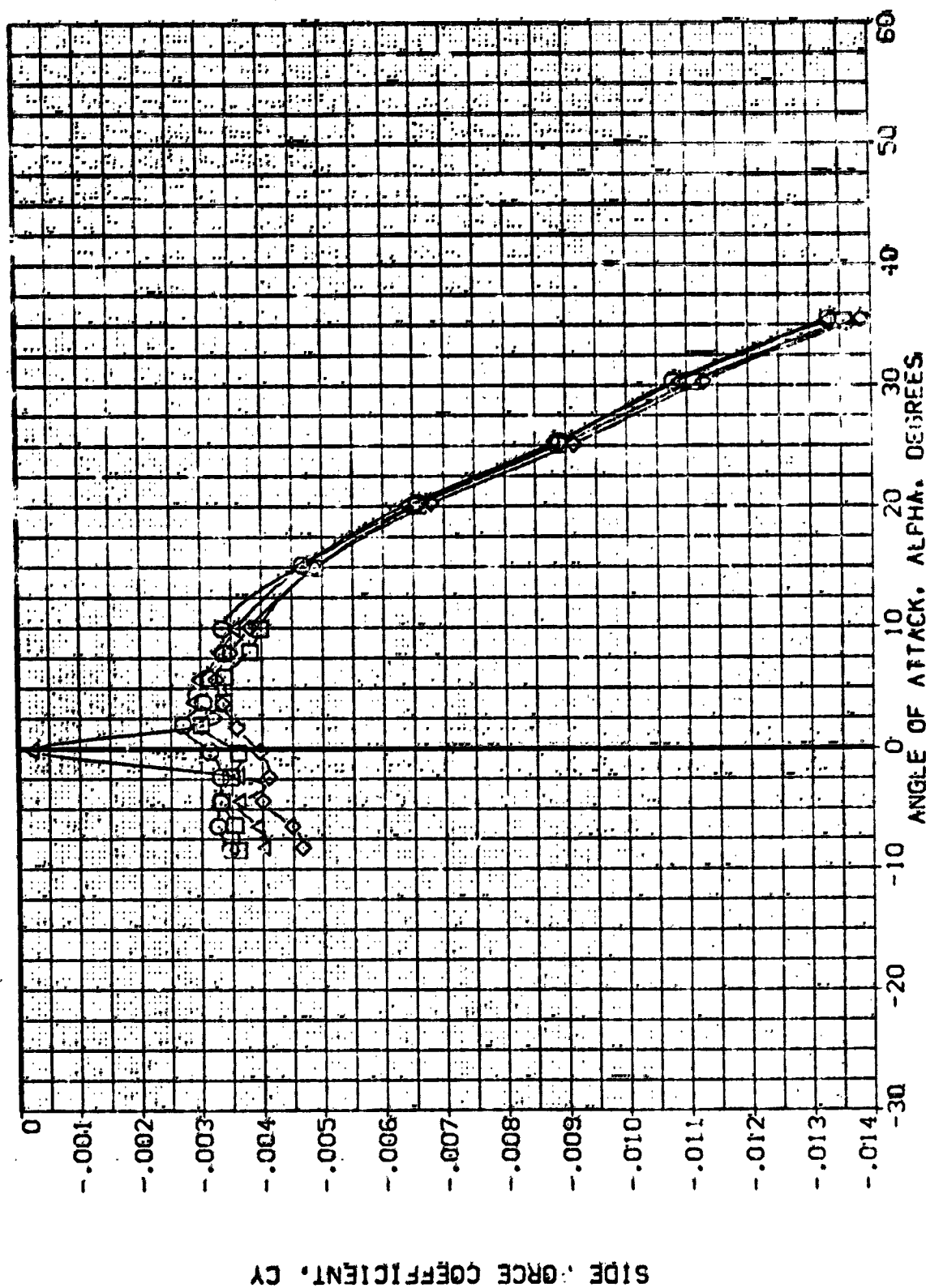


FIGURE 10. JET OFF AERO, BOFLAP= 13.75, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJA035) C1N79N78 LARC CFHT 118 (MA-22)
 (RJA318) C1N51 LARC CFHT 118 (MA-22)
 (RJA324) C1N85 LARC CFHT 118 (MA-22)
 (RJA325) C1N85N50 LARC CFHT 118 (MA-22)
 (RJA341) C1N93 LARC CFHT 118 (MA-22)

ELEVON T/BA BOFLAP BETA REFERENCE INFORMATION
 10.000 .000 .000 .000 SREF 2690.0000 50. FT.
 10.000 .000 .000 .000 LREF 474.8000 INCHES
 10.000 .000 .000 .000 BREF 936.6800 INCHES
 10.000 .000 .000 .000 XTRP 1076.7000 IN. TO
 10.000 .000 .000 .000 ZTRP 375.0000 IN. TO
 SCALE .0100

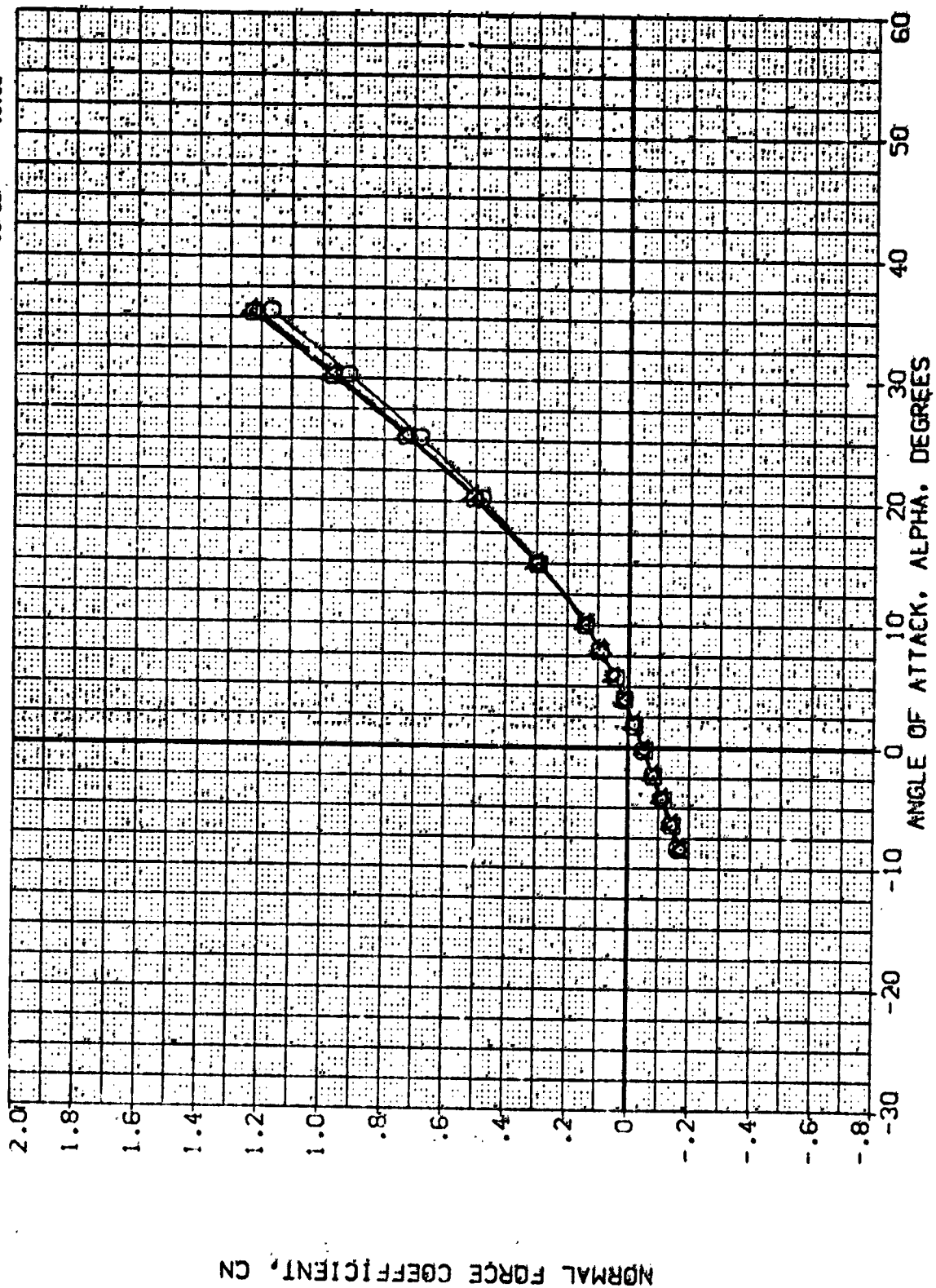


FIGURE 11. JET OFF AERO. ELEVON=10, BOFLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RJA035.)	QIN2978 LARC CFHT 118 (MA-221)
(RJA318.)	QIN51 LARC CFHT 118 (MA-221)
(RJA324.)	QIN85 LARC CFHT 118 (MA-221)
(RJA325.)	QIN850 LARC CFHT 118 (MA-221)
(RJA341.)	QIN83 LARC CFHT 118 (MA-221)

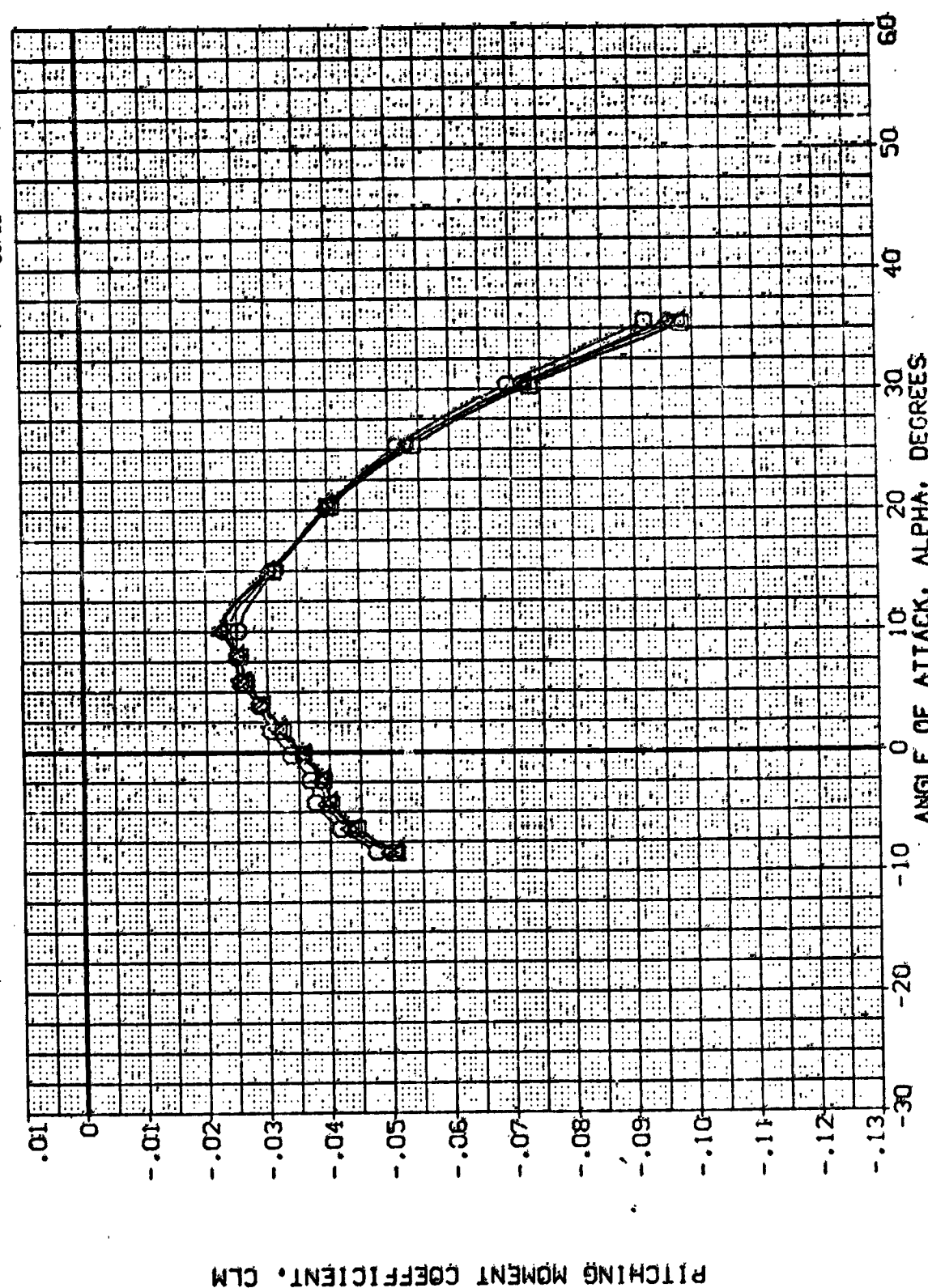


FIGURE 11. JET OFF AERO. ELEVON=10, BDFLAP=C, BETA=0

$$\dot{A})_{MACH} = 10.33$$

TWO	BDFLAP	SETA	REFERENCE INFORMATION	SO. FT. INCHES	IN. X2	IN. X2	IN. X2	IN. X2
10.000	.000	.000	SREF	2690.0000				
10.000	.000	.000	LREF	474.8000				
10.000	.000	.000	BREF	936.5800				
10.000	.000	.000	XTRP	1076.7000				
10.000	.000	.000	ZTRP	375.0000				
10.000	.000	.000	SCALE	.0100				

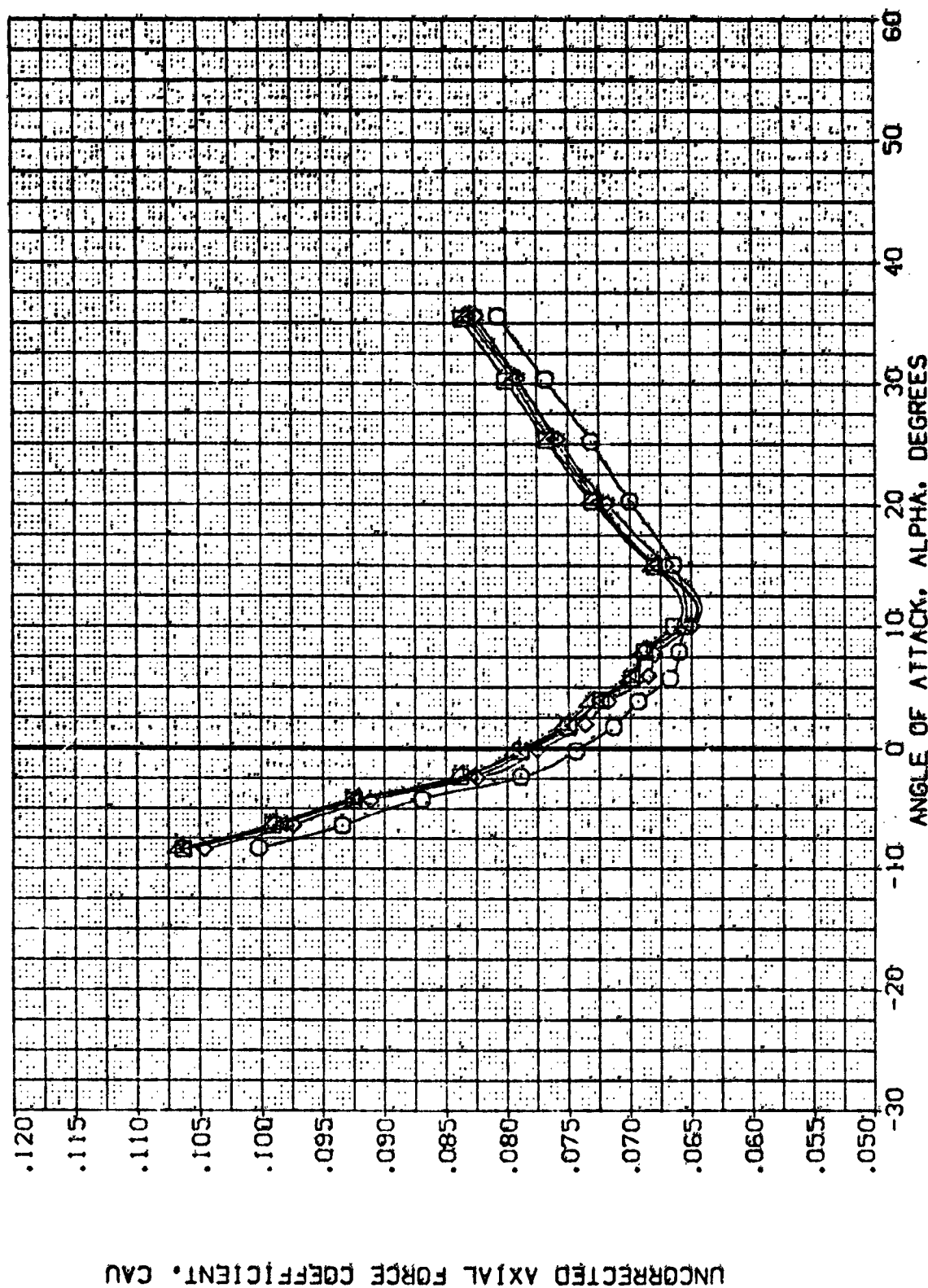


FIGURE 11. JET OFF AERO, ELEVON=10, BOFLAP=0, BETA=0

(A)MACH = 10.33

(RJA035)
 (RJA318)
 (RJA324)
 (RJA325)
 (RJA341)

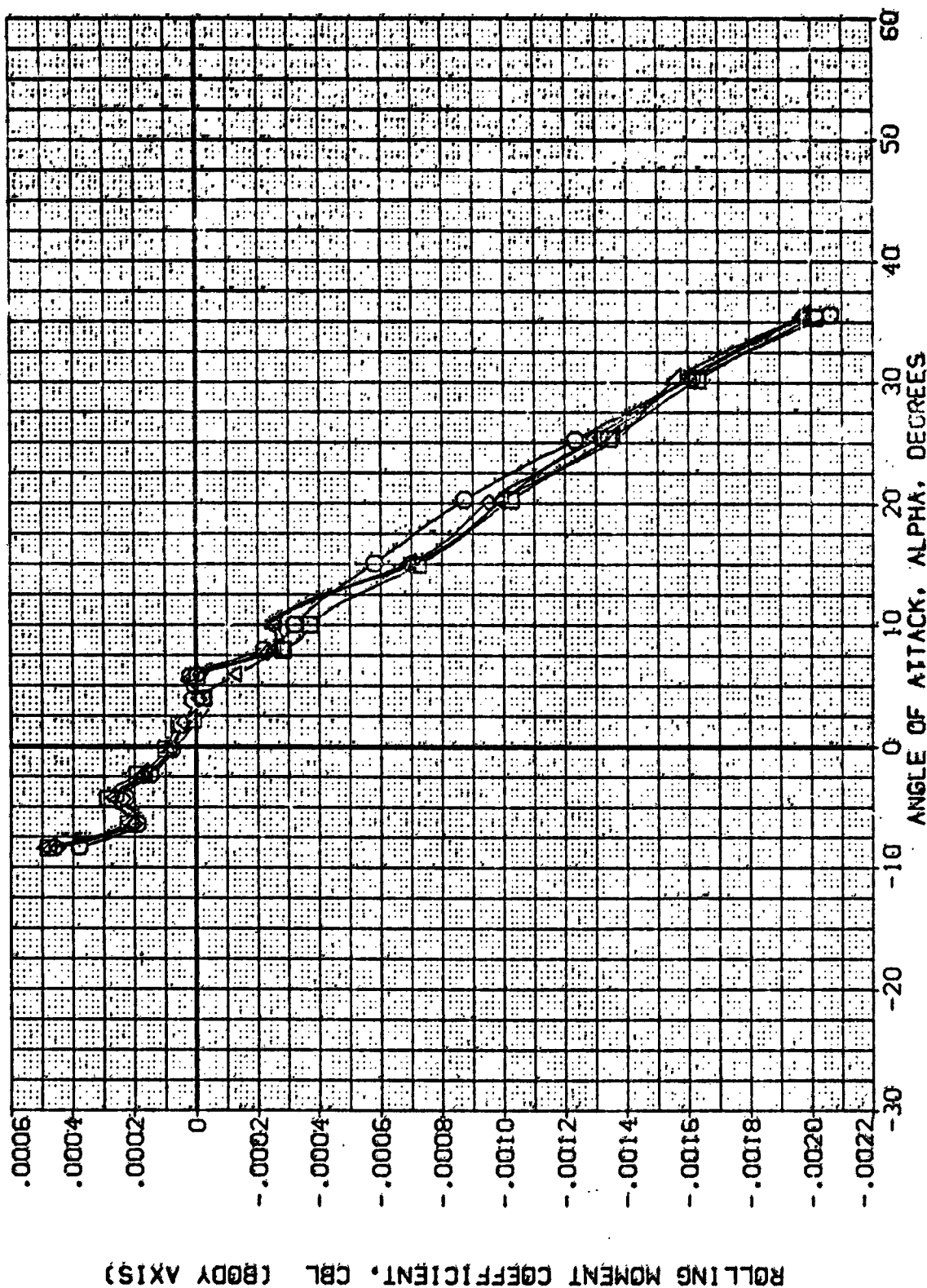


FIGURE 11. JET OFF AERO, ELEVON=10, BOFLAP=0, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJA035) Q1N79W78 LARC CFHT 118 (MA-22)
 (RJA318) Q1N51 LARC CFHT 118 (MA-22)
 (RJA324) Q1N85 LARC CFHT 118 (MA-22)
 (RJA325) Q1N85 LARC CFHT 118 (MA-22)
 (RJA341) Q1N83 LARC CFHT 118 (MA-22)

ELEVON T/OA BOFLAP BETA REFERENCE INFORMATION SO.FT. INCHES
 10.000 .000 .000 SREF 2690.0600 50.00
 16.000 .000 .000 LREF 474.9000 19.00
 16.000 .000 .000 BREF 976.5000 39.00
 10.000 .000 .000 XMRP 1076.7000 43.00
 10.000 .000 .000 YMRP 375.0000 15.00
 SCALE .0100

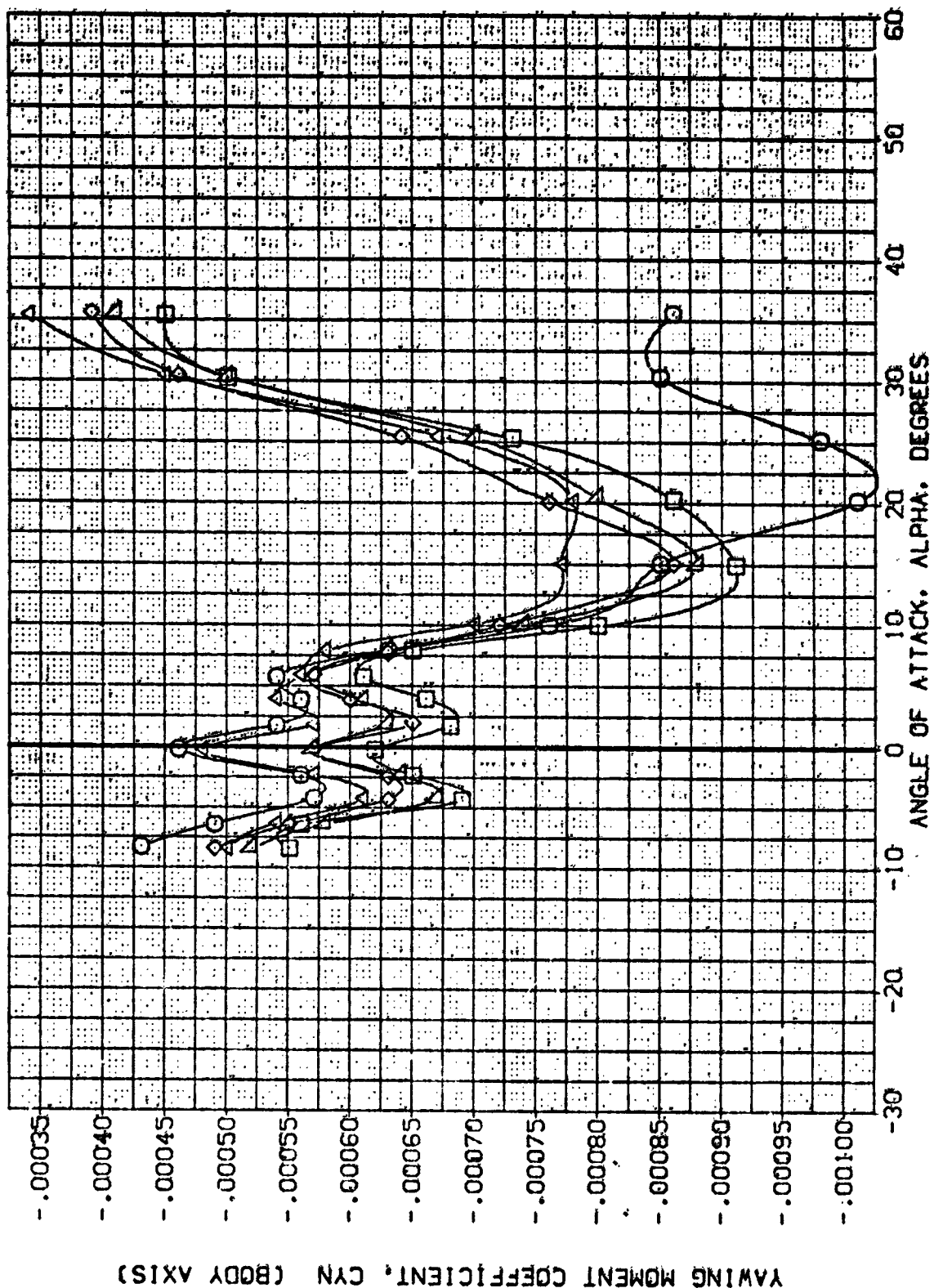


FIGURE 11. JET OFF AERO, ELEVON=10, BOFLAP=0, BETA=0

(A)MACH = 10.33

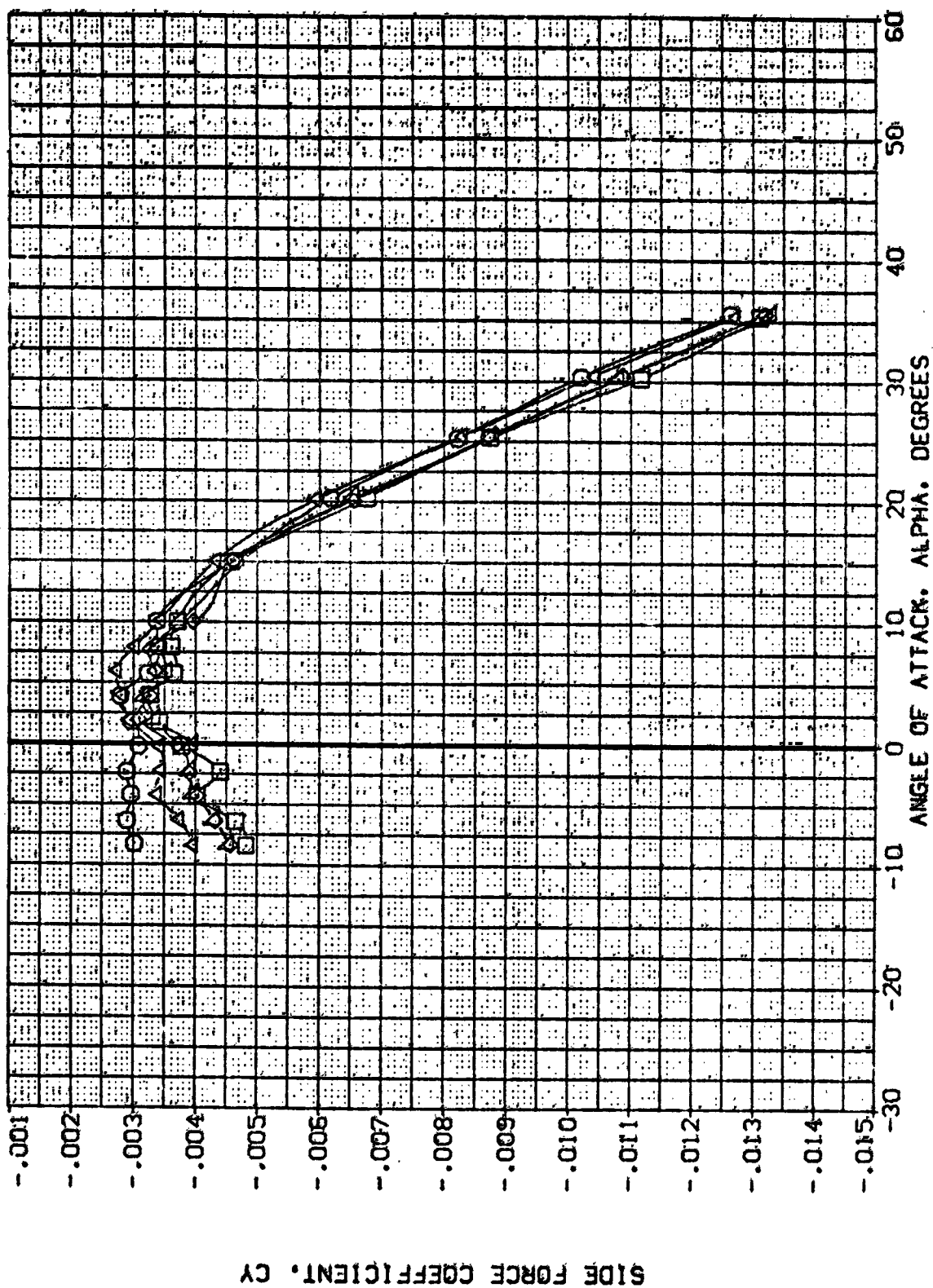
[illegible]

FIGURE 11. JET OFF AERO. ELEVON=10, BDFLAP=0, BETA=0

$$(A)_{\text{MACH}} = 10.33$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJA257) QJN83 LARC CFHT 118 (MA-227)
 (RJA259) QJN83 LARC CFHT 118 (MA-227)
 (RJA274) QJN73N78 LARC CFHT 118 (MA-227)

ELEVON T/OA BDFLAP BETA
 .000 .000 -14.250 .000
 .000 .000 -14.250 .000
 .000 .000 -14.250 .000

REFERENCE INFORMATION
 SREF 2650.0000 SQ.FT.
 LREF 474.8800 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

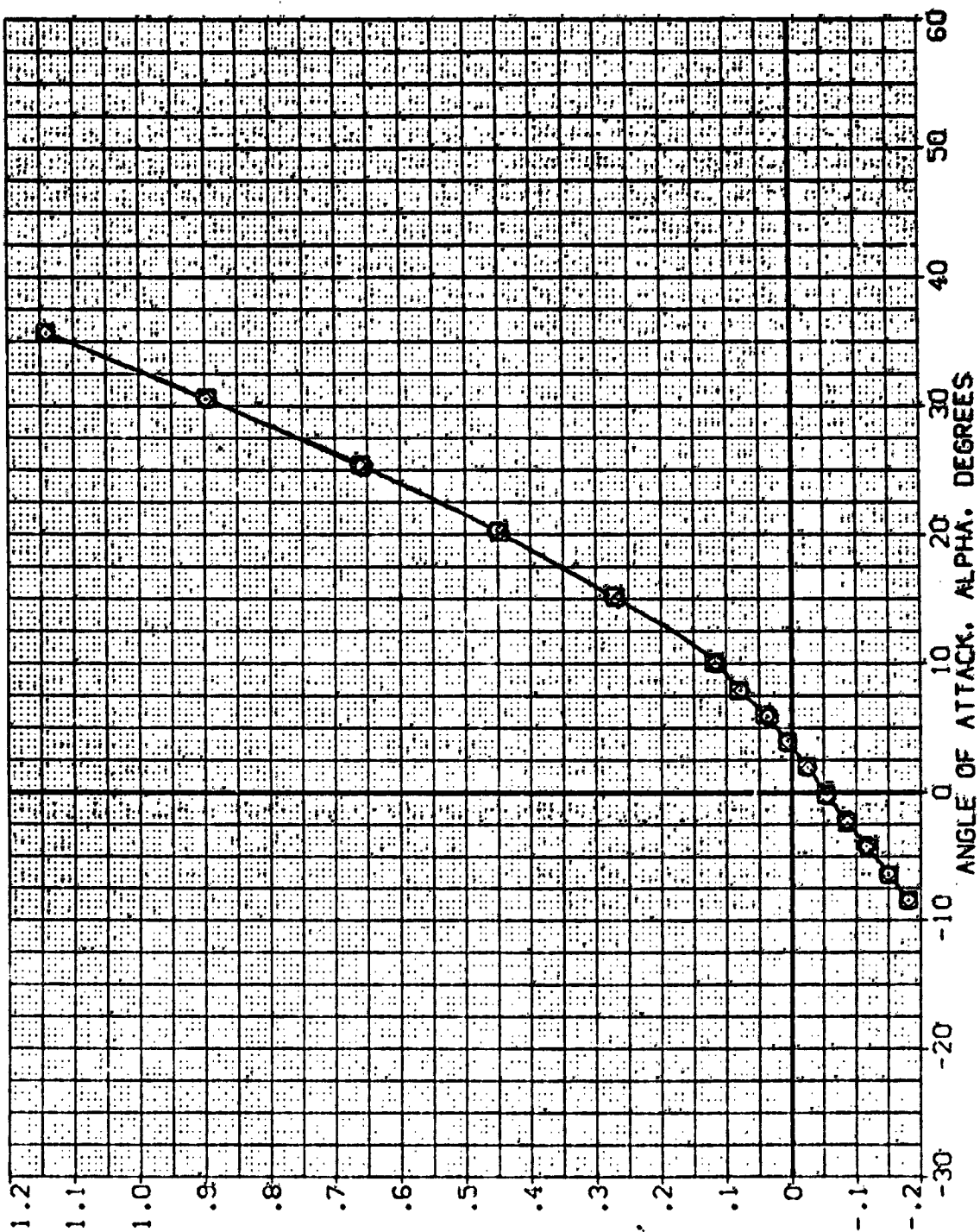


FIGURE 12. JET OFF AERO. ELEVON=0, BDFLAP=-14.25, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJAZ37) Q1983 LARC CPMT 118 (MA-22)
 (RJAZ59) Q1983 LARC CPMT 118 (MA-22)
 (RJAZ74) Q1979N28 LARC CPMT 118 (MA-22)

ELEVON 7/8A BDFLAP BETA REFERENCE INFORMATION SD.FT.
 .000 .000 .000 SREF 2590.0000 INCHES
 .000 .000 .000 LREF 474.8000 INCHES
 .000 .000 .000 SREF 936.6800 IN. NO
 .000 .000 .000 YMRP 1076.7000 IN. NO
 .000 .000 .000 ZMRP 375.0080 IN. NO
 SCALE .0100

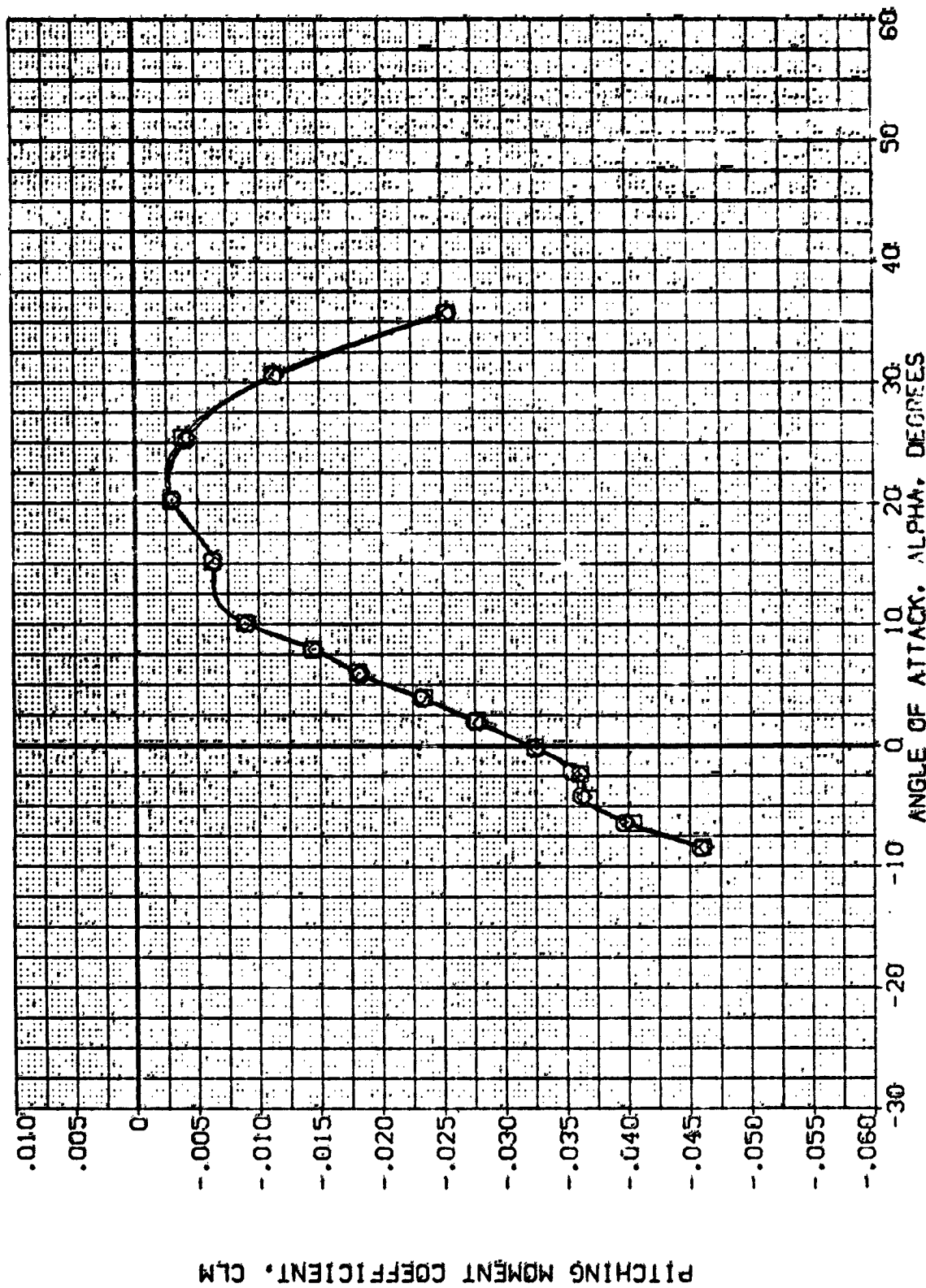


FIGURE 12. JET OFF AERO. ELEVON=0. BDFLAP=-14.25. BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJA257) Q1N83 LARC CFMT 118 (MA-22)
 (RJA259) Q1N83 LARC CFMT 118 (MA-22)
 (RJA274) Q1N79N78 LARC CFMT 118 (MA-22)

ELEVON T/DA BOFLAP BETA
 .000 .000 .000
 .000 .000 .000
 .000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SO.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X
 YMRP .0000 IN. Y
 ZMRP 375.0000 IN. Z
 SCALE .0100

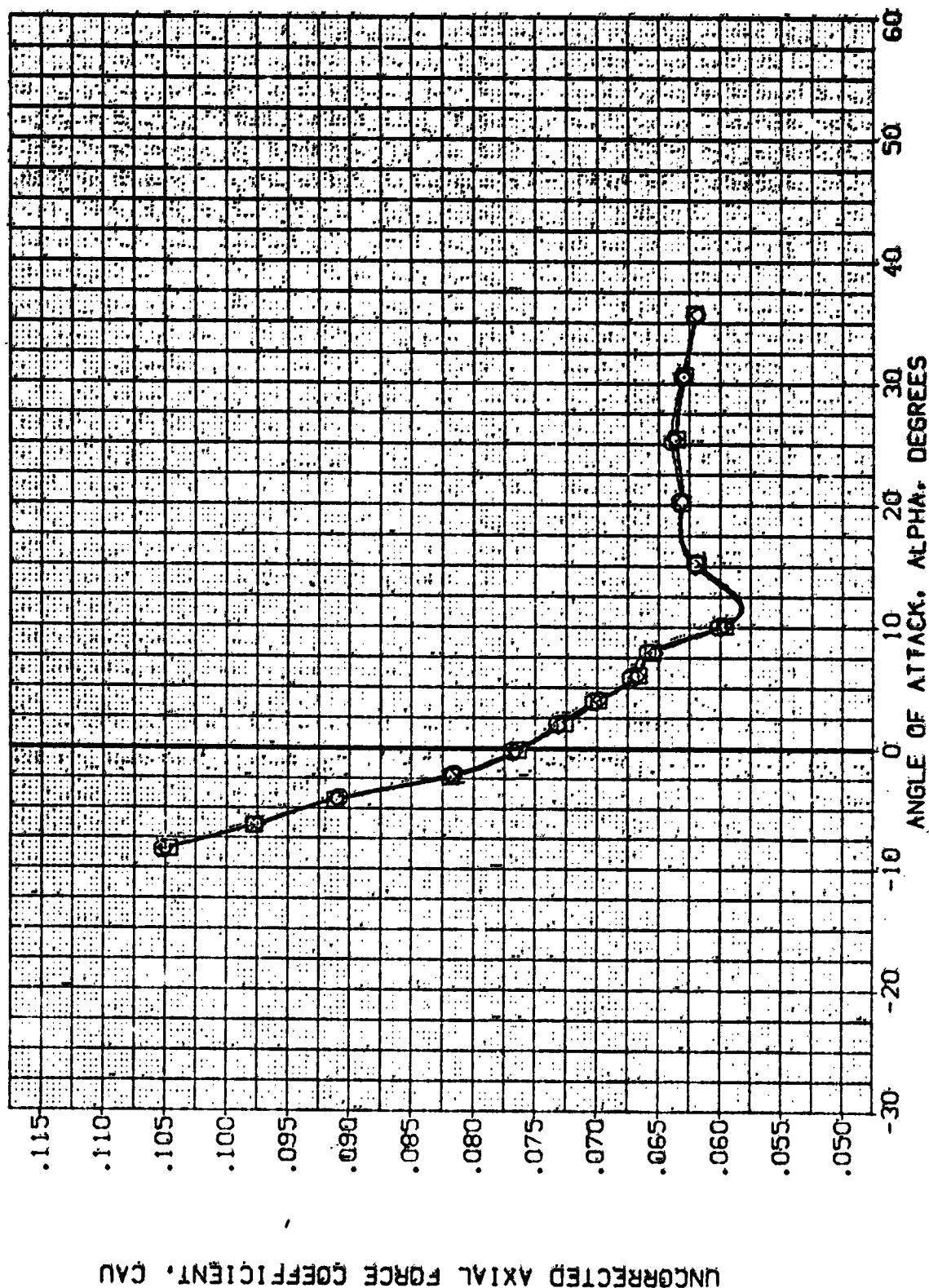


FIGURE 12. JET OFF AERO, ELEVON=0, BOFLAP=-14.25, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJA258) GUN83 LARC CFHT 118 (NA-22)
 (RJA259) GUN83 LARC CFHT 118 (NA-22)
 (RJA274) GUN79N78 LARC CFHT 118 (NA-22)

ELEVON TAOA BDFLAP BETA REFERENCE INFORMATION
 .000 .000 -14.250 .000 SREF 2650.0000 SQ.FT.
 .000 .000 -14.250 .000 LREF 474.8000 INCHES
 .000 .000 -14.250 .000 BREF 906.6800 INCHES
 .000 .000 -14.250 .000 XREF 1076.7000 IN. TO
 .000 .000 -14.250 .000 YREF .0000 IN. TO
 .000 .000 -14.250 .000 ZREF 395.0600 IN. TO
 .000 .000 -14.250 .000 SCALE .0000

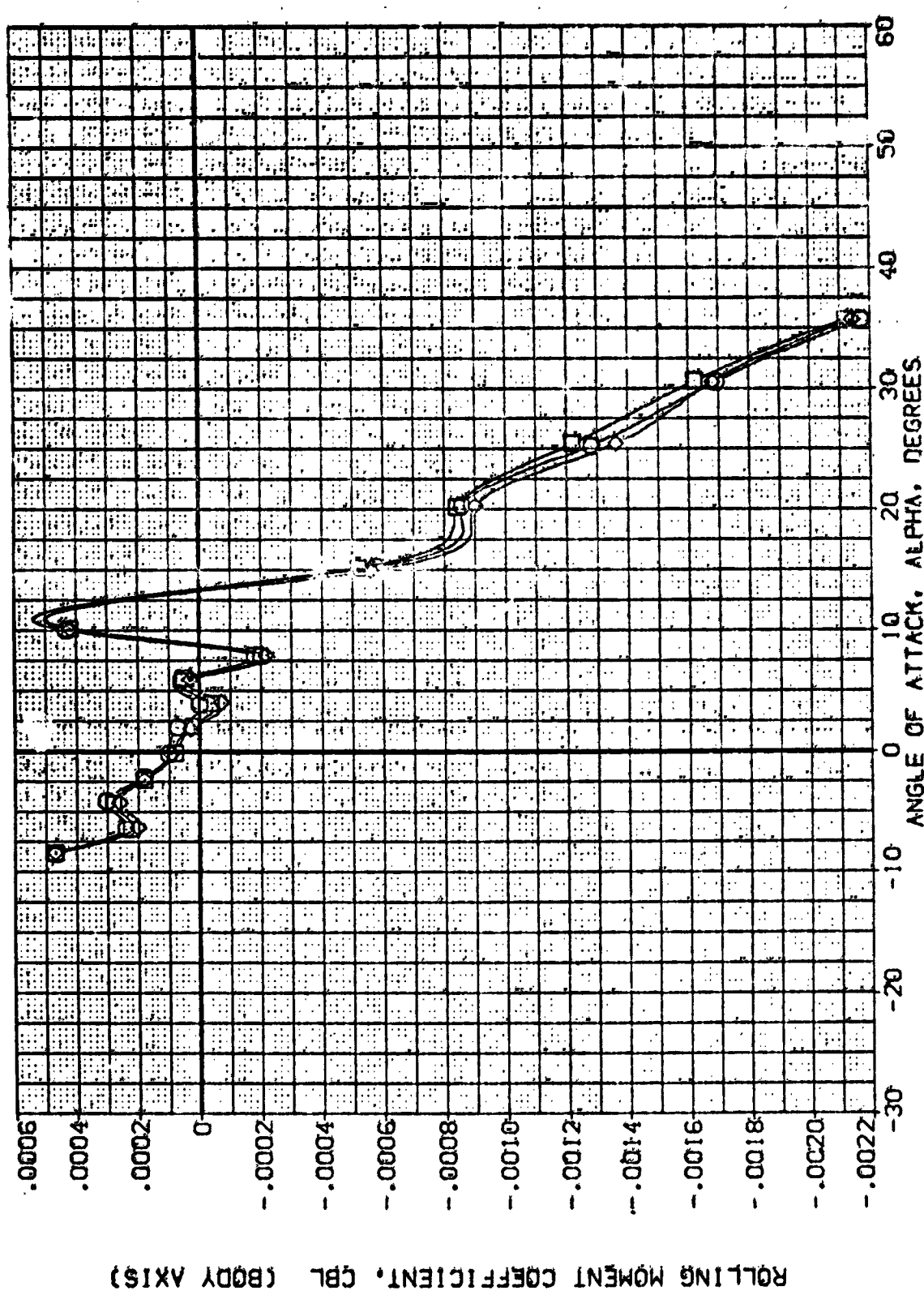


FIGURE 12. JET OFF AERO, ELEVON=0, BDFLAP=-14.25, BETA=0
 (A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJA257) QJN63 LARC CFMT 118 (MA-22)
 (RJA259) QJN63 LARC CFMT 118 (MA-22)
 (RJA274) QJN79N28 LARC CFMT 118 (MA-22)

ELEVON T/DA BDCLAP BETA
 .000 .000 .000
 .600 .000 .080
 .600 .000 .000

REFERENCE INFORMATION
 SREF 2650.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 935.6800 INCHES
 XPRP 1076.7000 IN. X0
 YPRP .0000 IN. Y0
 ZPRP 375.0000 IN. Z0
 SCALE .0100

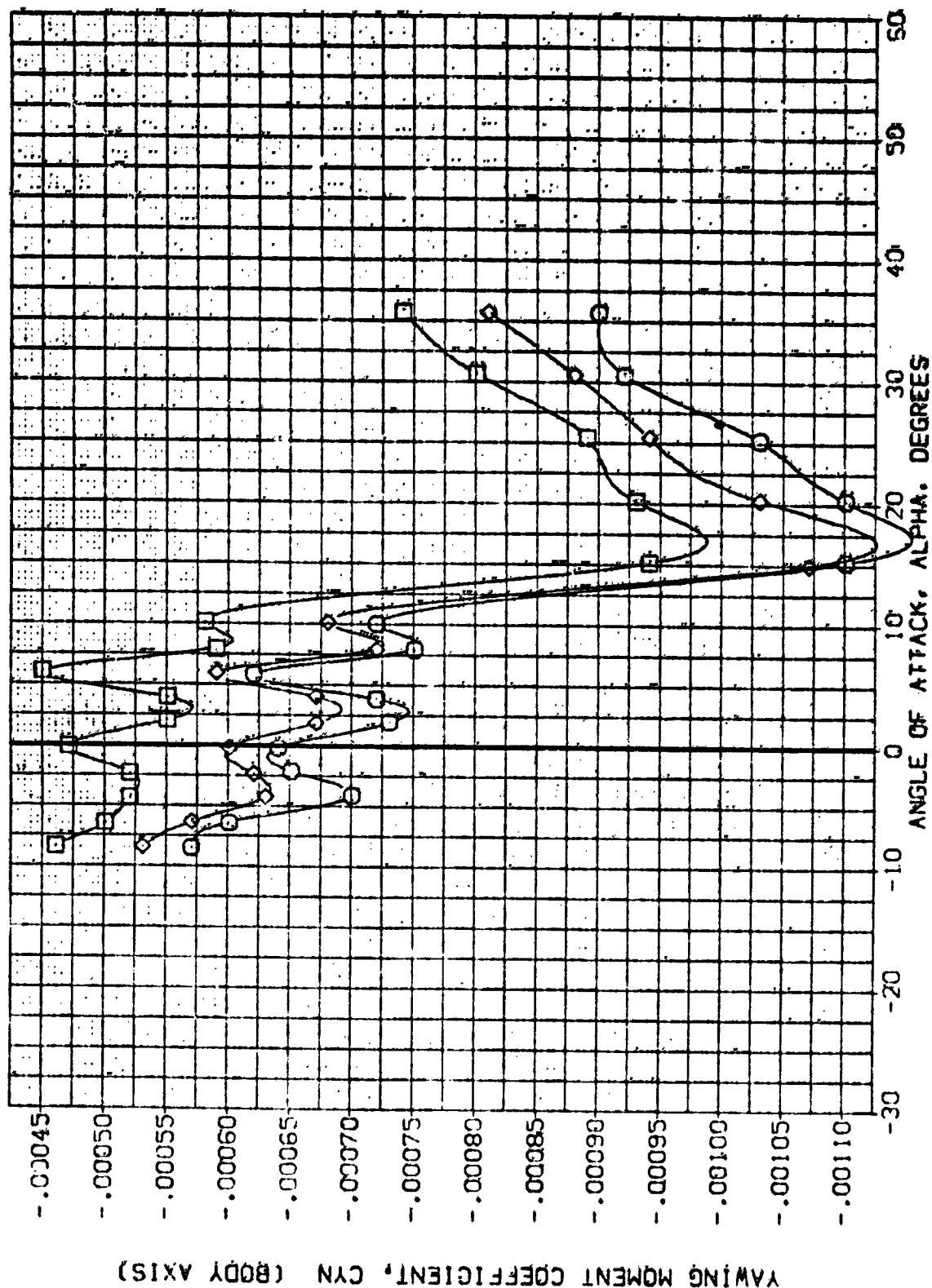


FIGURE 12. JET OFF AERO, ELEVON=0, BDCLAP=-14.25, BETA=0

(MACH = 10.33)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJA257) QIN83 LARC CFHT 118 (MA-22)
 (RJA258) QIN83 LARC CFHT 118 (MA-22)
 (RJA274) QIN79W/8 LARC CFHT 118 (MA-22)

ELEVON T/OA BDFLAP CETA
 .008 -14.250 .000
 .000 -14.250 .000
 .000 -14.250 .000

REFERENCE INFORMATION
 SREF 2650.1000 SD.FT
 LREF 474.8000 INCHES
 SREF 936.6500 INCHES
 XREF 1076.7000 IN. X0
 YREF .0000 IN. Y0
 ZREF 375.0000 IN. Z0
 SCALE .0100

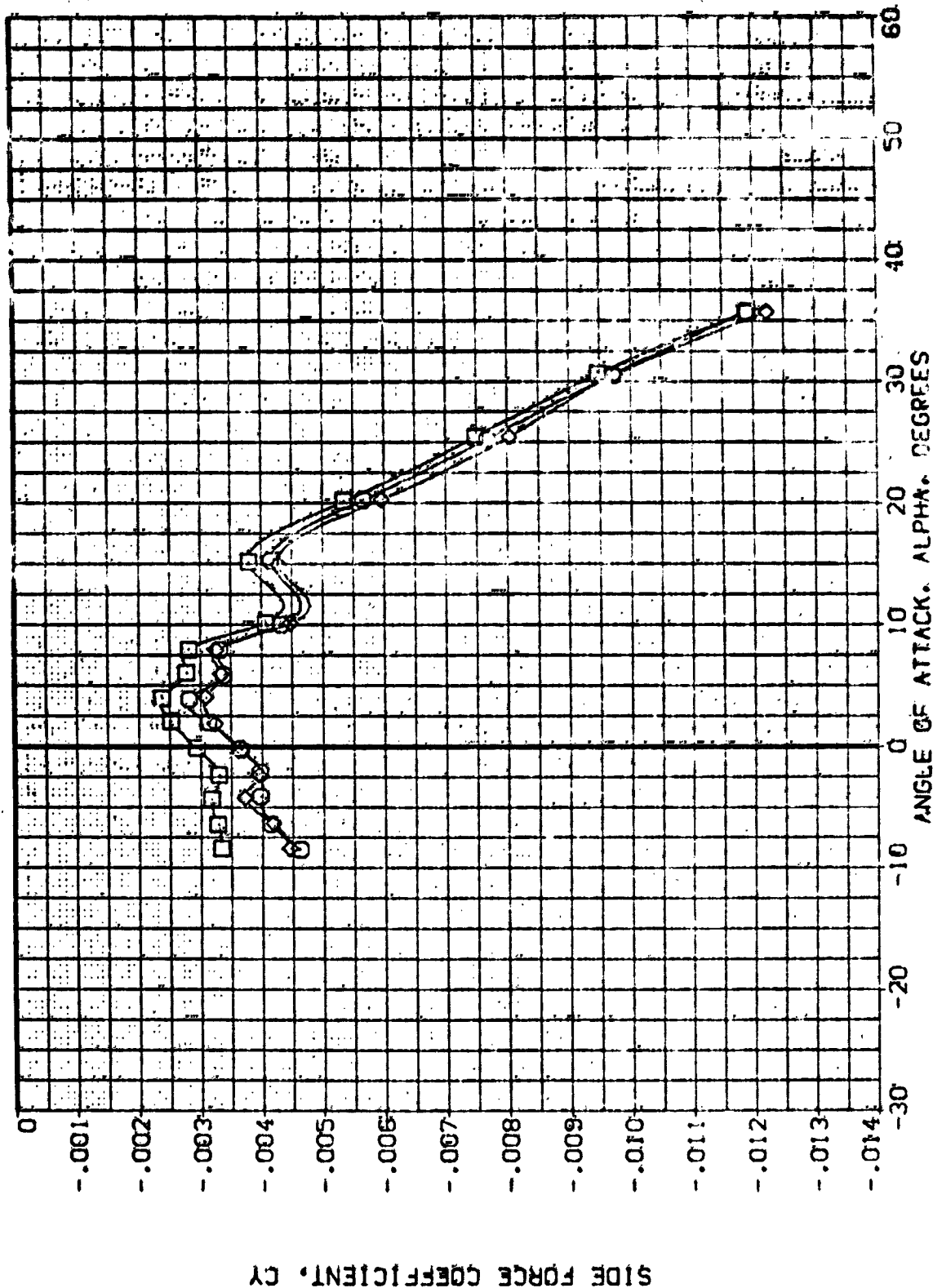


FIGURE 12. JET OFF AERO. ELEVON=0. BDFLAP=-14.25. BETA=0

(A)MACH = 10.33

DATA SET SYMBOL: (RJA240) (RJA244)
 CONFIGURATION DESCRIPTION: C1N78N78 LARC CFMT 118 (MA-221) C1N79 LARC CFMT 118 (MA-222)

ELEVON 1/DA .000 .000
 BOFLAP 13.750 13.750
 BETA .000 .000

REFERENCE INFORMATION:
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 938.6800 INCHES
 XREF 1076.7000 IN. X0
 YREF 375.0000 IN. Y0
 ZREF .0100 IN. Z0
 SCALE

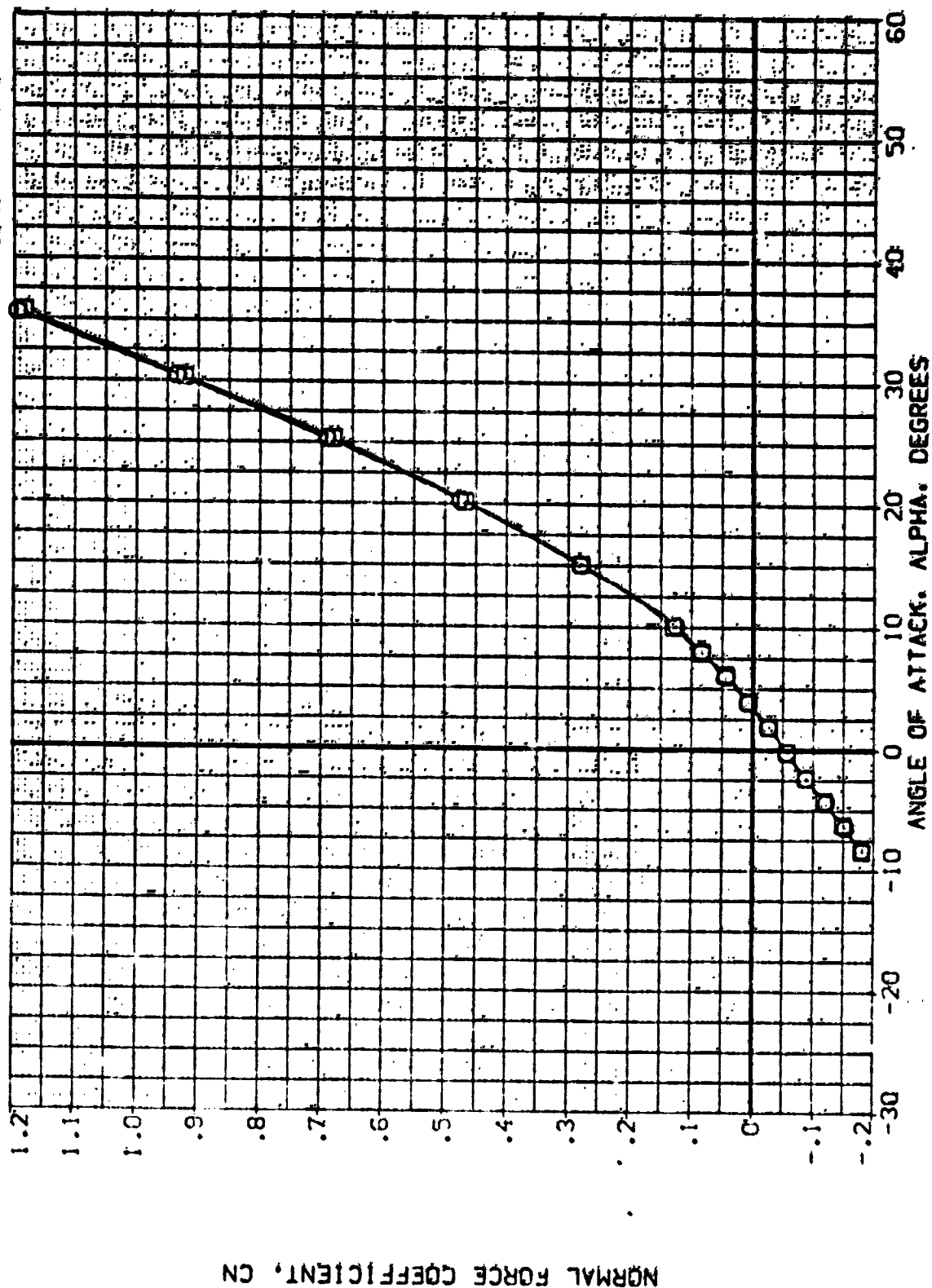


FIGURE 13. JET OFF AERO, ELEVON= 0, BOFLAP= 13.75, BETA=0
 (A)MACH = 10.33

DATA SET SYMBOL: 8
 (RJA240) (RJA241)
 CONFIGURATION DESCRIPTION:
 QIN79W8 LARC CFMT 118 (HA-22)
 QIN79 LARC CFMT 118 (HA-22)

ELEVON: .000
 T/OA: .000
 BOFLAP: 13.750
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2650.000 SO.FT.
 LREF: 474.000 INCHES
 BREF: 936.000 INCHES
 WREF: 1076.000 IN. KG
 WREF: 375.000 IN. YD
 ZREF: .0100 SCALE

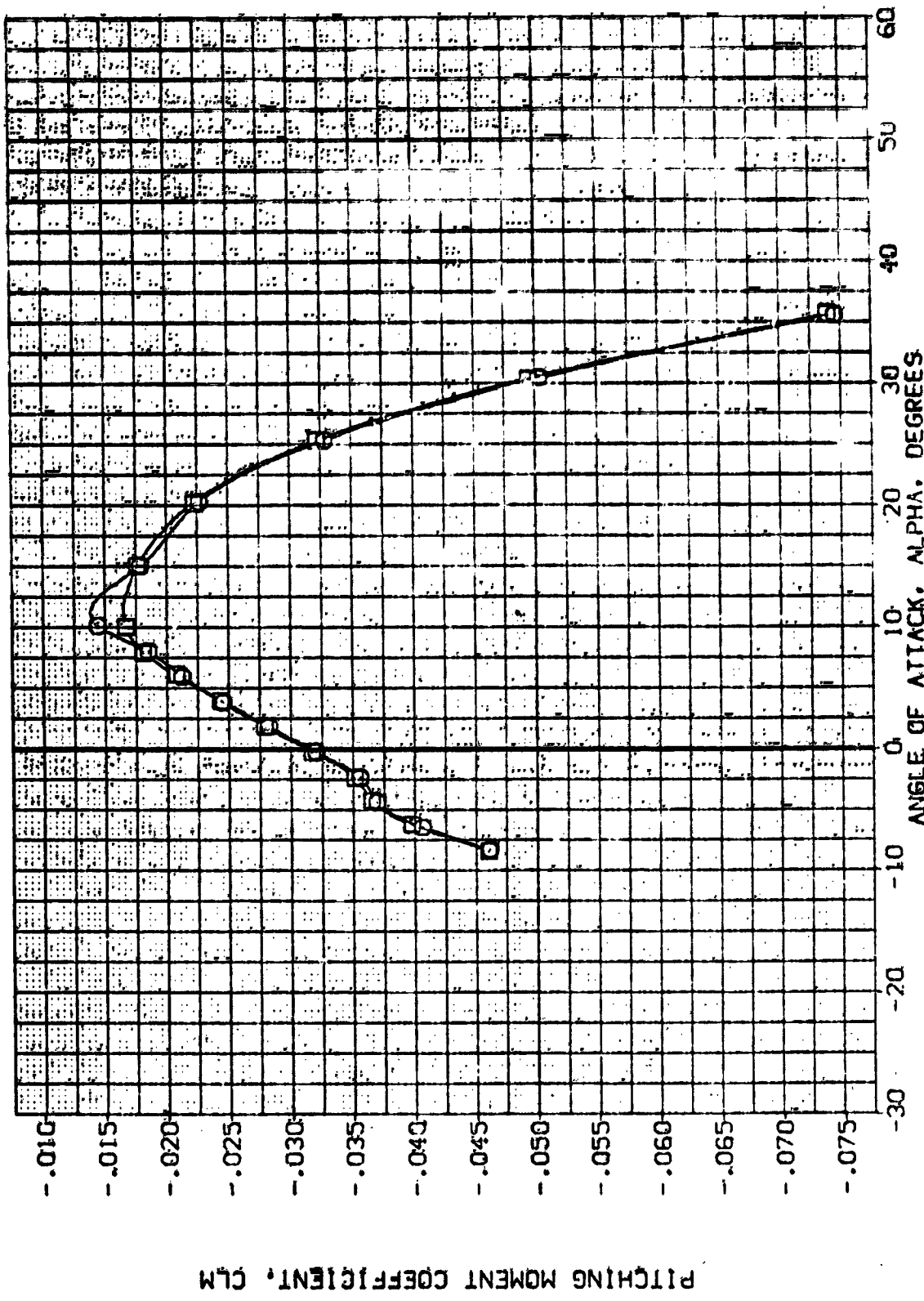


FIGURE 13. JET OFF AERO, ELEVON=0, BOFLAP=13.75, BETA=0
 (A)MACH = 10.33

DATA SET SYMBOL: (RJA240)
 CONFIGURATION DESCRIPTION: 01N79N78 LARC CFHT 118 (MA-22)
 01N79 LARC CFHT 118 (MA-22)

ELEVON T/OA BDFLAP BETA
 .000 .000 .000
 .000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 976.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

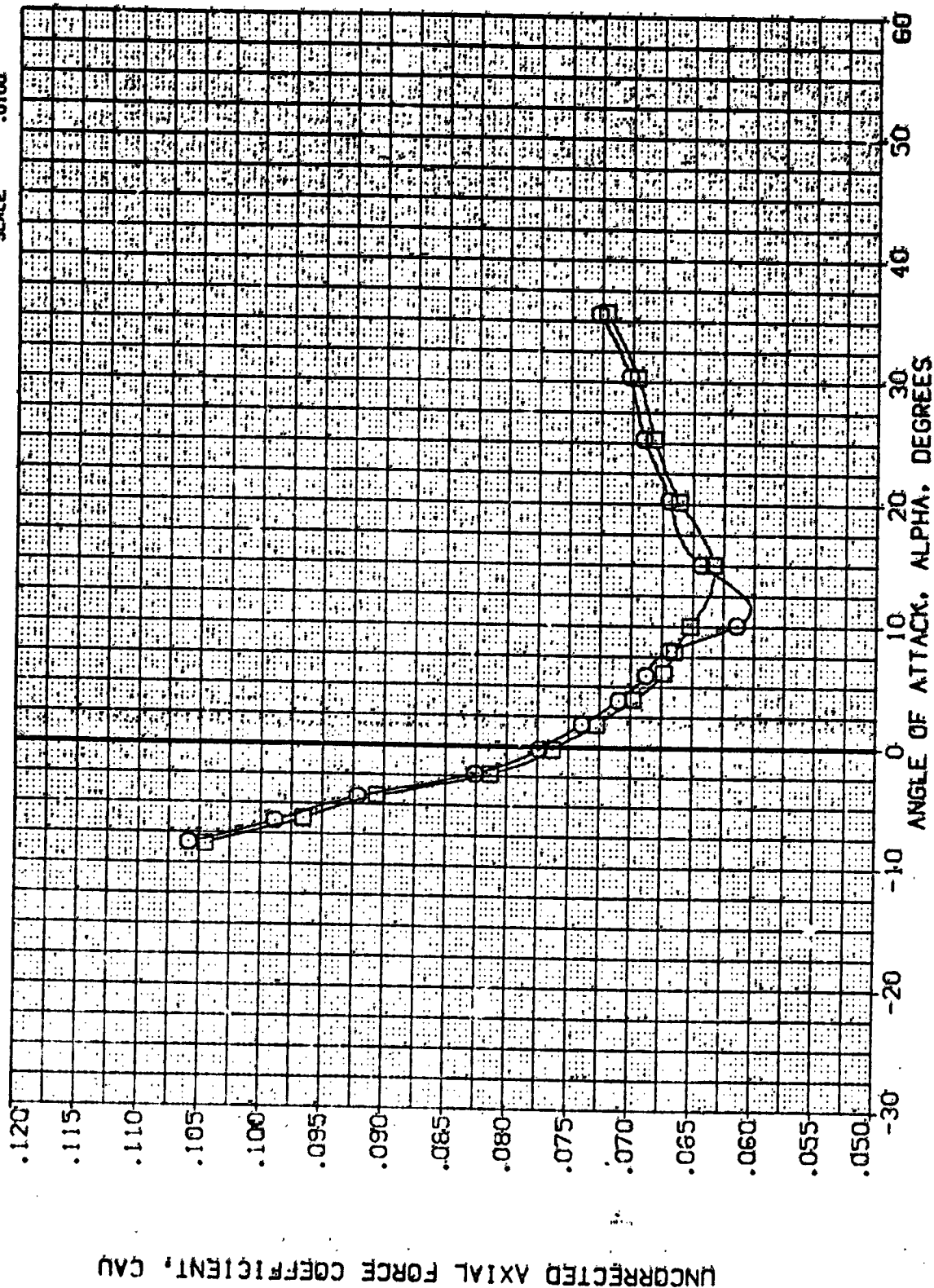


FIGURE 13. JET OFF AERO, ELEVON=0, BDFLAP=13.75, BETA=0

(A)MACH = 10.33

JULY	INCHES	INCHES	INCHES
LREF	474.3000	IN. X0	IN. Z0
BREF	936.5800	IN. V0	
XMRP	1076.7000		
YMRP	.0000		
ZMRP	375.0000		
SCALE	.0100		

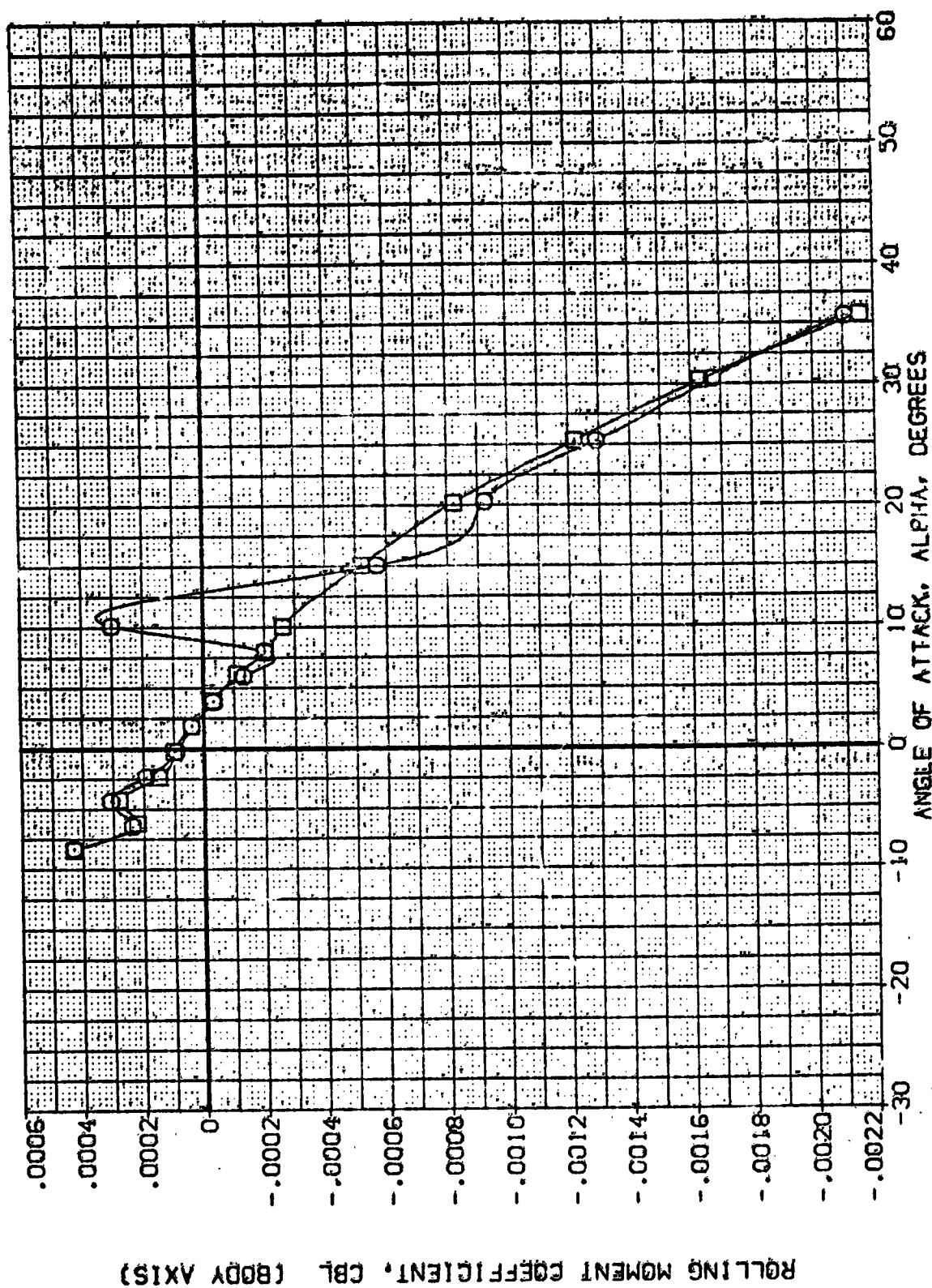


FIGURE 13. JET OFF AERO. ELEVON=0, BOFLAP=13.75, BETA=0
(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJA240.1) 01N79N78 LARC CFHT 118 (MA-22)
 (RJA244.1) 01N79 LARC CFHT 118 (MA-22)

ELEVON T/OA BDFLAP BETA
 .000 .000 13.750 .000
 .000 .000 13.750 .000

REFERENCE INFORMATION
 SREF 2890.0000 50.00
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 YMRP 1076.7000 IN. X0
 YMRP 375.0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

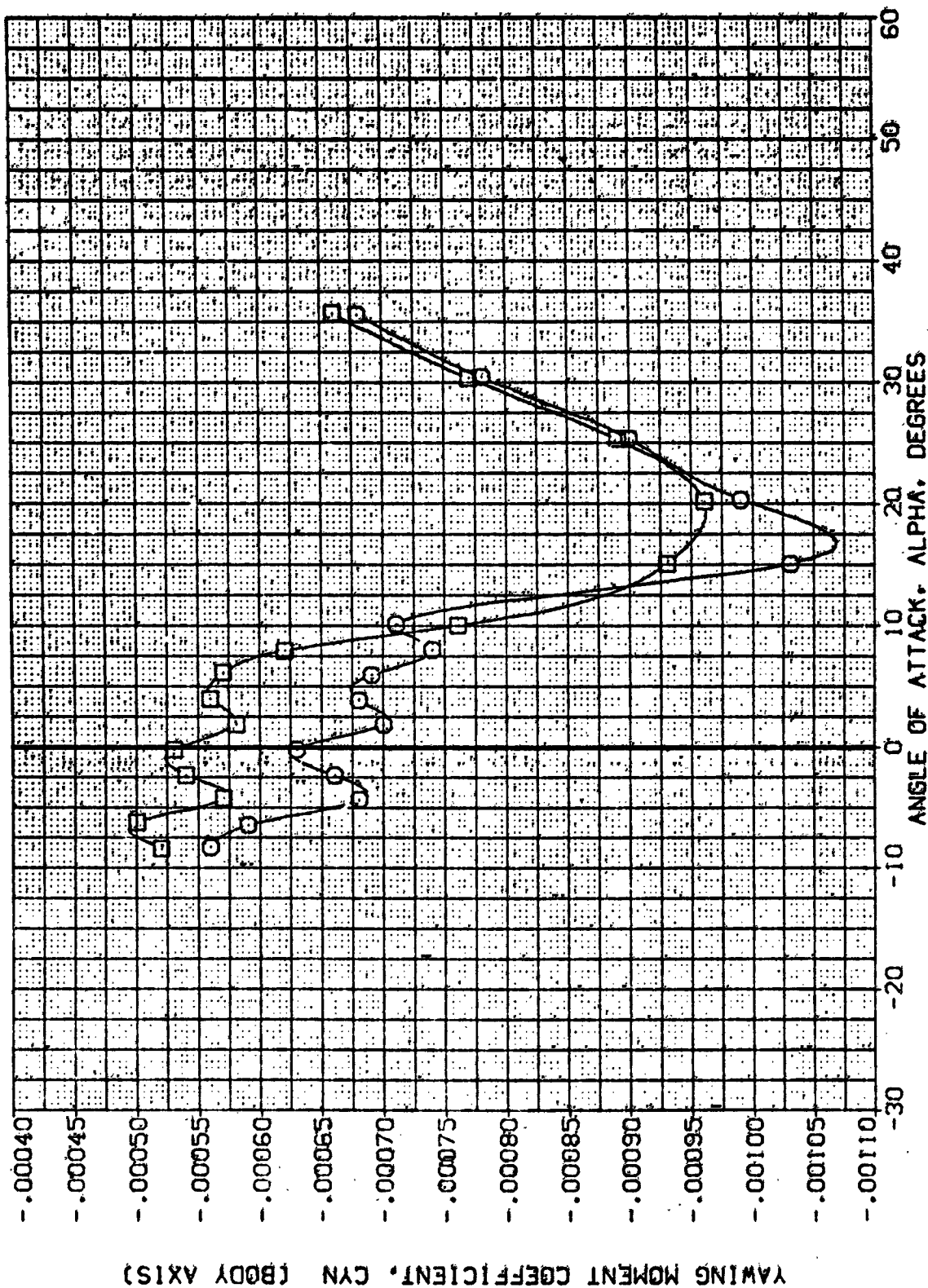


FIGURE 13. JET OFF AERO, ELEVON=0, BDFLAP=13.75, BETA=0

(A)MACH = 10.33

(RJA240) 01079N78 LARC CPT 118 (MA-22)
 (RJA244) 01079 LARC CPT 118 (MA-22)

.000
 .000

.000
 .000

.000
 .000

.000
 .000

.000
 .000

.000
 .000

.000
 .000

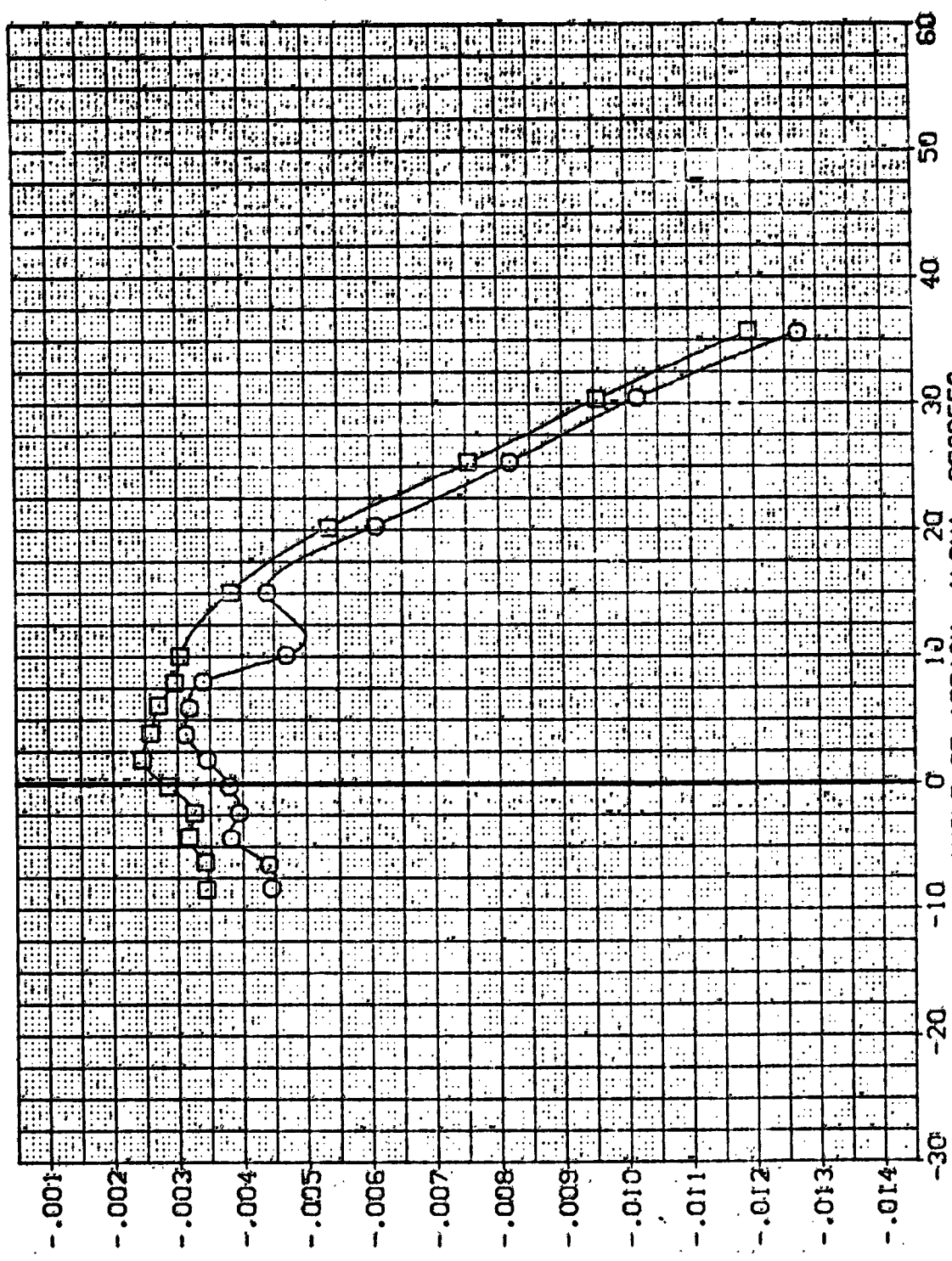


FIGURE 13. JET OFF AERO. ELEVON=0, BOFLAP=13.75, BETA=0
 (A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJ275) Q1M75N78 LARC CFHT 118 (MA-22T)
 (RJ277) Q1M75N78 LARC CFHT 118 (MA-22T)
 (RJ289) Q1M49 LARC CFHT 118 (MA-22T)
 (RJ280) Q1M63 LARC CFHT 118 (MA-22T)

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 YMRP 1076.7000 IN. YD
 ZMRP 375.6000 IN. ZD
 SCALE .0100

BETA
 .000
 .000
 .000
 .000

BDFLAP
 -14.250
 -14.250
 -14.250
 -14.250

T/OA
 .000
 .000
 .000
 .000

ELEVON
 -30.000
 -30.000
 -30.000
 -30.000

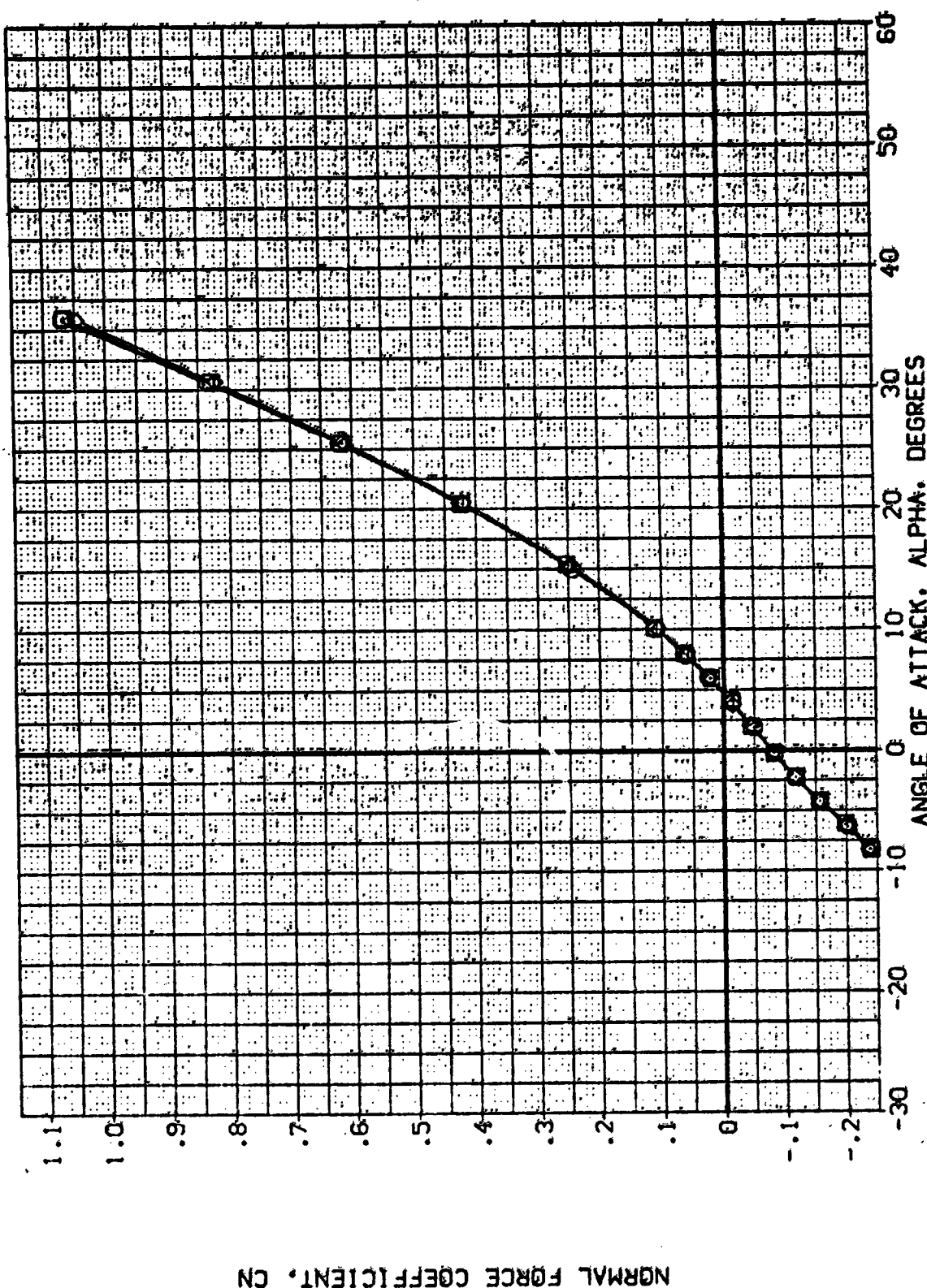


FIGURE 14. JET OFF AERO, ELEVON=-30, BDFLAP=-14.25, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL
 (RJA275)
 (RJA277)
 (RJA289)
 (RJA290)

CONFIGURATION DESCRIPTION
 QJN79N78 LARC CFHT 118 (MA-22)
 QJN79N78 LARC CFHT 118 (MA-22)
 QJN49 LARC CFHT 118 (MA-22)
 QJN83 LARC CFHT 118 (MA-22)

REFERENCE IN QUANTITY
 SREF 2690.0000 SO.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0800 IN. Z0
 SCALE .0100

ELEVON T/GA BDFLAP BETA
 -30.000 .000 -14.250 .000
 -30.000 .000 -14.250 .000
 -30.000 .000 -14.250 .000
 -30.000 .000 -14.250 .000

PITCHING MOMENT COEFFICIENT, CLM

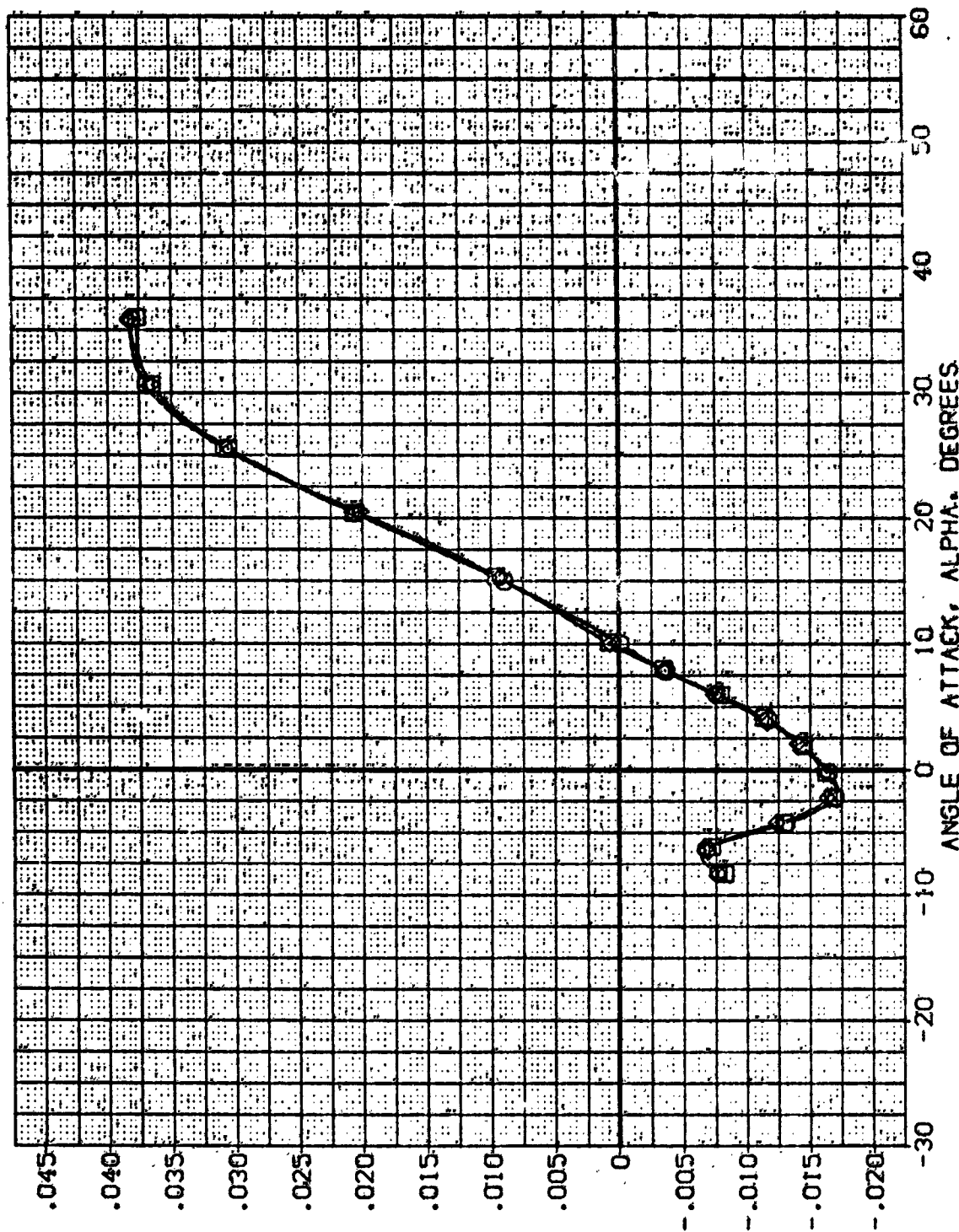


FIGURE 14. JET OFF AERO, ELEVON=-30, BDFLAP=-14.25, BETA=0
 (A)MACH = 10.33

DATA SET SYMBOL: 01N79N78 LARC CFMT 118 (MA-221)
 01N79N78 LARC CFMT 118 (MA-221)
 01N48 LARC CFMT 118 (MA-221)
 01N83 LARC CFMT 118 (MA-221)

ELEVON: -30.000
 T/OA: .000
 BOFLAP: -14.250
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2690.0000 SO.FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. NO.
 YMRP: .0800 IN. NO.
 ZMRP: 375.0000 IN. NO.
 SCALE: .0100

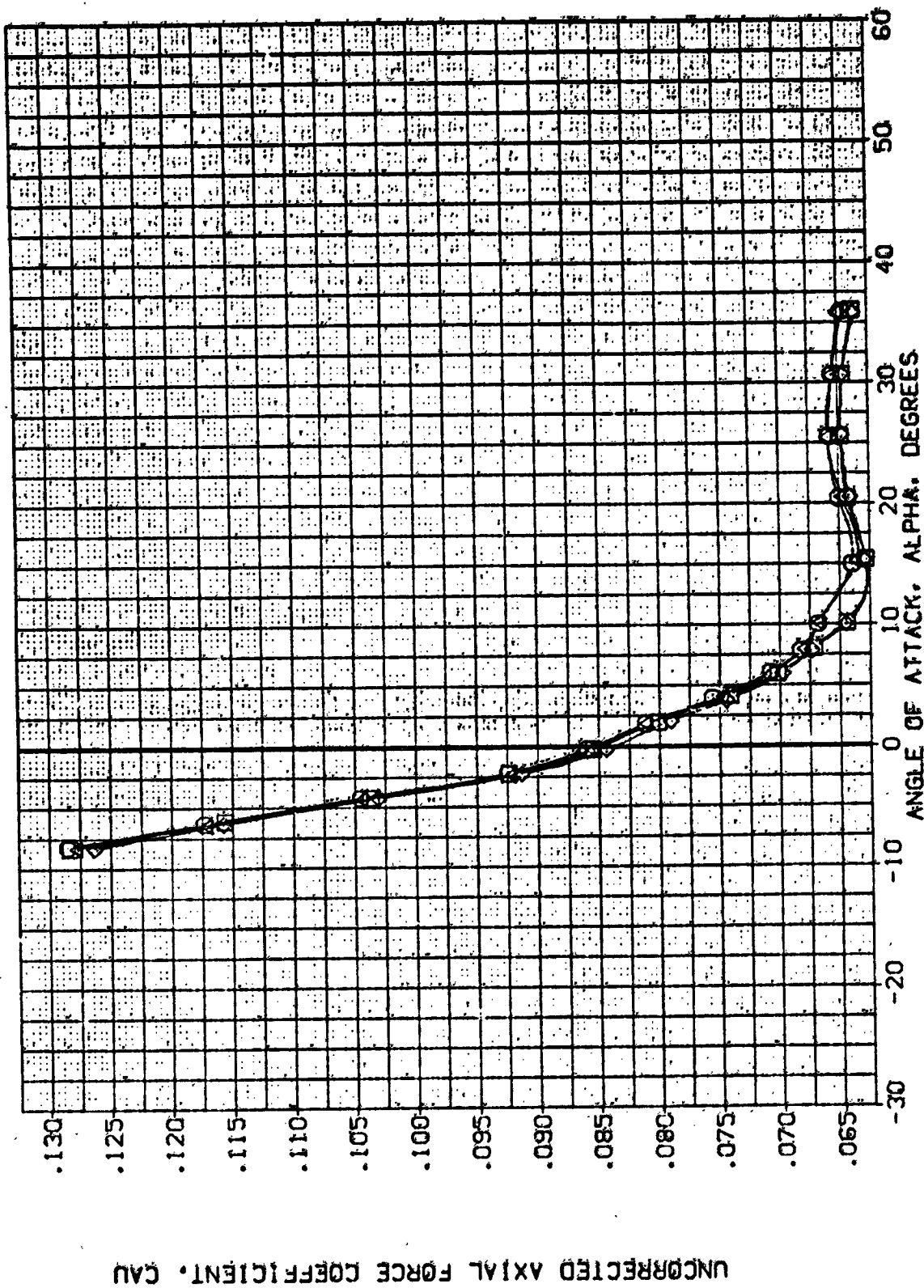


FIGURE 14. JET OFF AERO, ELEVON=-30, BOFLAP=-14.25, BETA=0
 CAJMACH = 10.33

	INCHES	IN. TO IN.	IN. TO IN.	IN. TO IN.
SPEF	2690.0000			
LREF	424.8000			
BREF	916.6800			
XMRP	1076.7600			
YMRP	0.0000			
ZMRP	325.0000			
SCALE	0.0100			

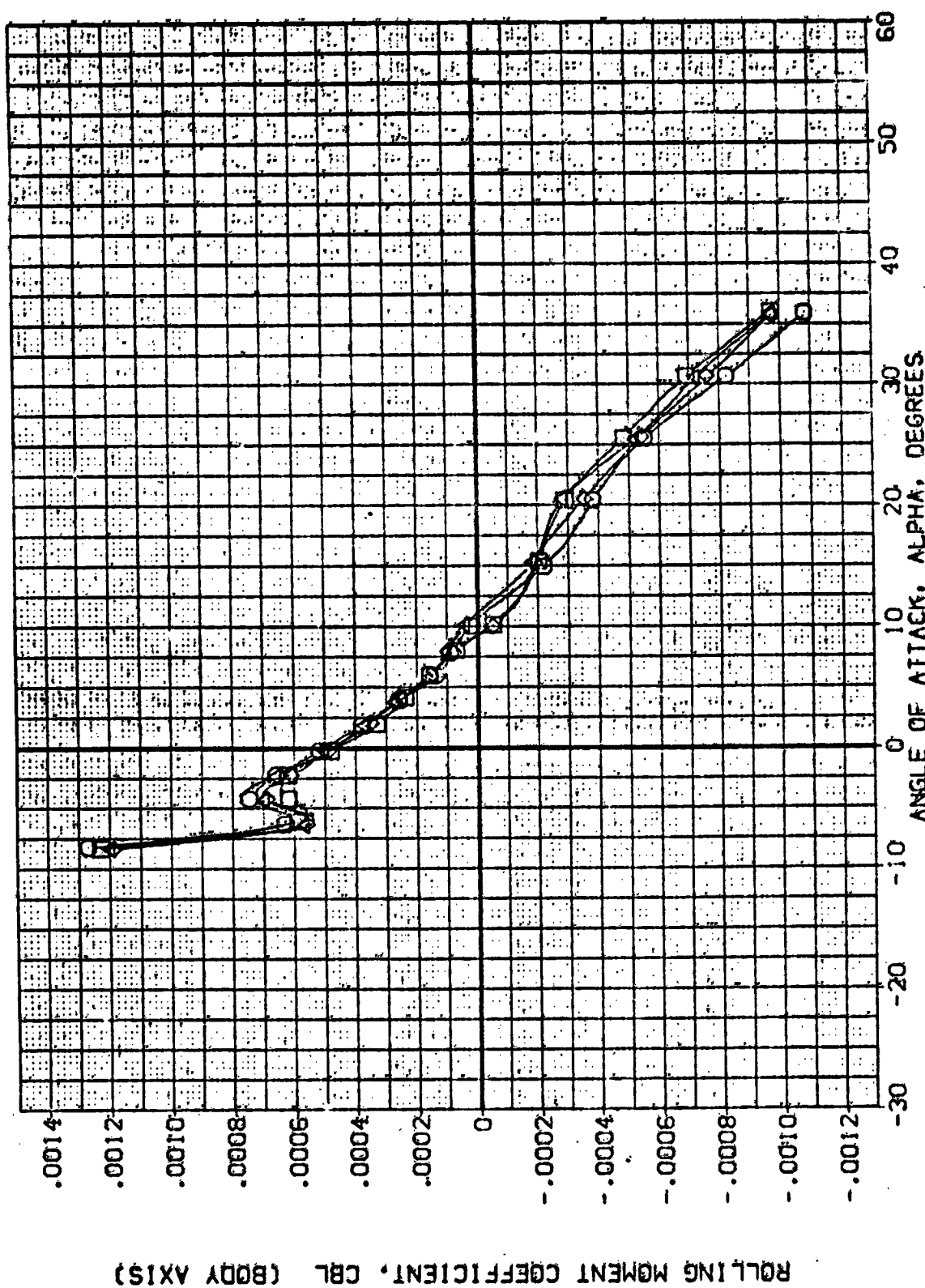


FIGURE 14. JET OFF AERO, ELEVON=-30, BOFLAP=-14.25, BETA=0

(A)MACH = 10.33

REFERENCE INFORMATION

SREF	2690.0000	50.74
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. 40
YMRP	.0000	IN. 40
ZMRP	375.0000	IN. 20
SCALE	.0100	

ELEVON TAOB BOFLAP BETA

-30.000	.000	-14.250	.000
-30.000	.000	-14.250	.000
-30.000	.000	-14.250	.000
-30.000	.000	-14.250	.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RJA275)	01N79N78	LARC CFMT 118 (MA-22)
(RJA277)	01N79N78	LARC CFMT 118 (MA-22)
(RJA289)	01N49	LARC CFMT 118 (MA-22)
(RJA290)	01N83	LARC CFMT 118 (MA-22)

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

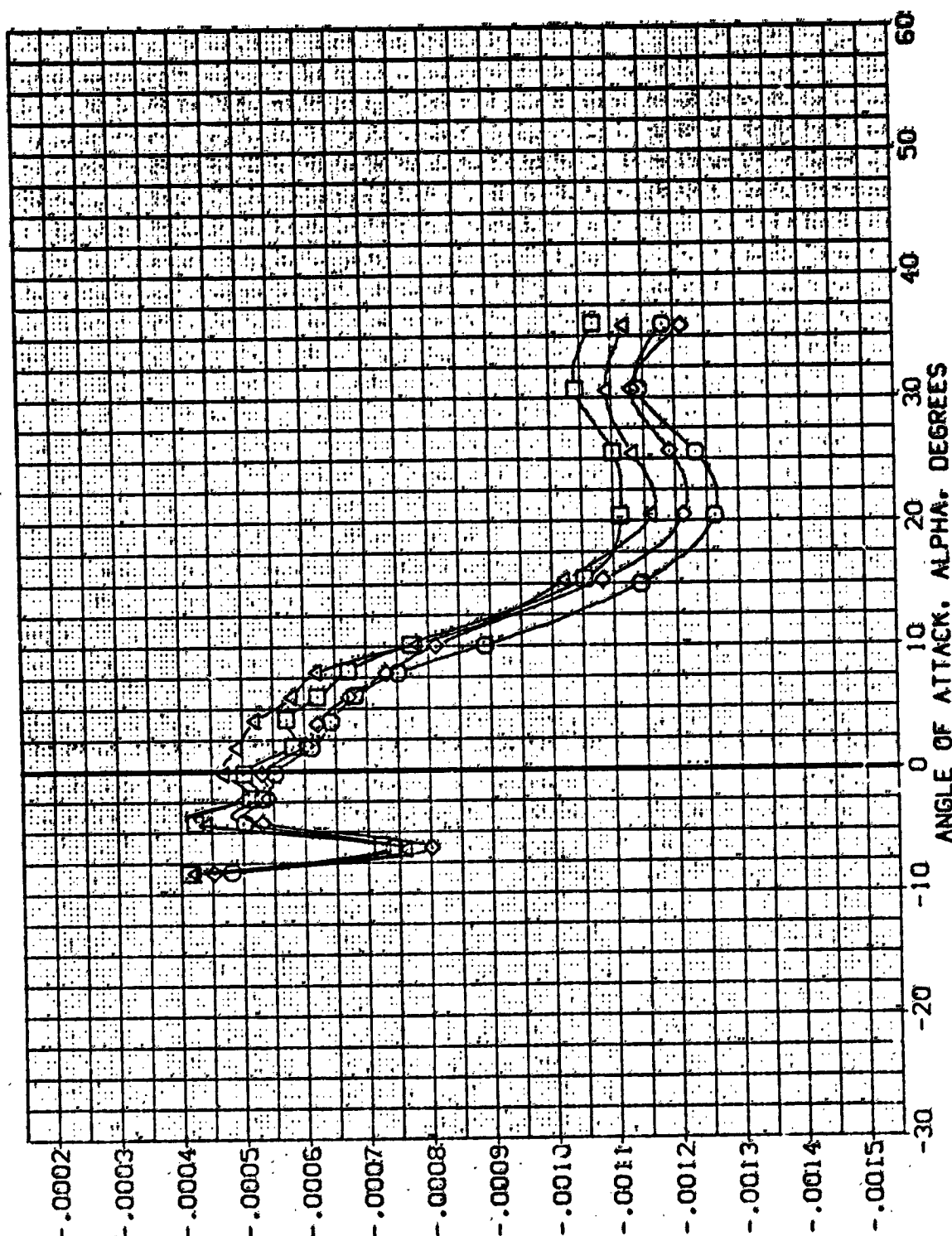


FIGURE 14. JET OFF AERO, ELEVON=-30, BOFLAP=-14.25, BETA=0

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA	BDFLAP	BETA	REFERENCE INFORMATION
(RJA275)	QIN79W78 LARC CFMT 118 (MA-22)	-30.000	.000	-14.250	.000	SREF 2690.0000 SO.FT.
(RJA277)	QIN79W78 LARC CFMT 118 (MA-22)	-30.000	.000	-14.250	.000	LREF 474.8000 INCHES
(RJA289)	QIN49 LARC CFMT 118 (MA-22)	-30.000	.000	-14.250	.000	BREF 986.6800 INCHES
(RJA290)	QIN93 LARC CFMT 118 (MA-22)	-30.000	.000	-14.250	.000	XREF 1076.7000 IN. X0
						YREF .0000 IN. Y0
						ZREF 395.0000 IN. Z0
						SCALE .0100

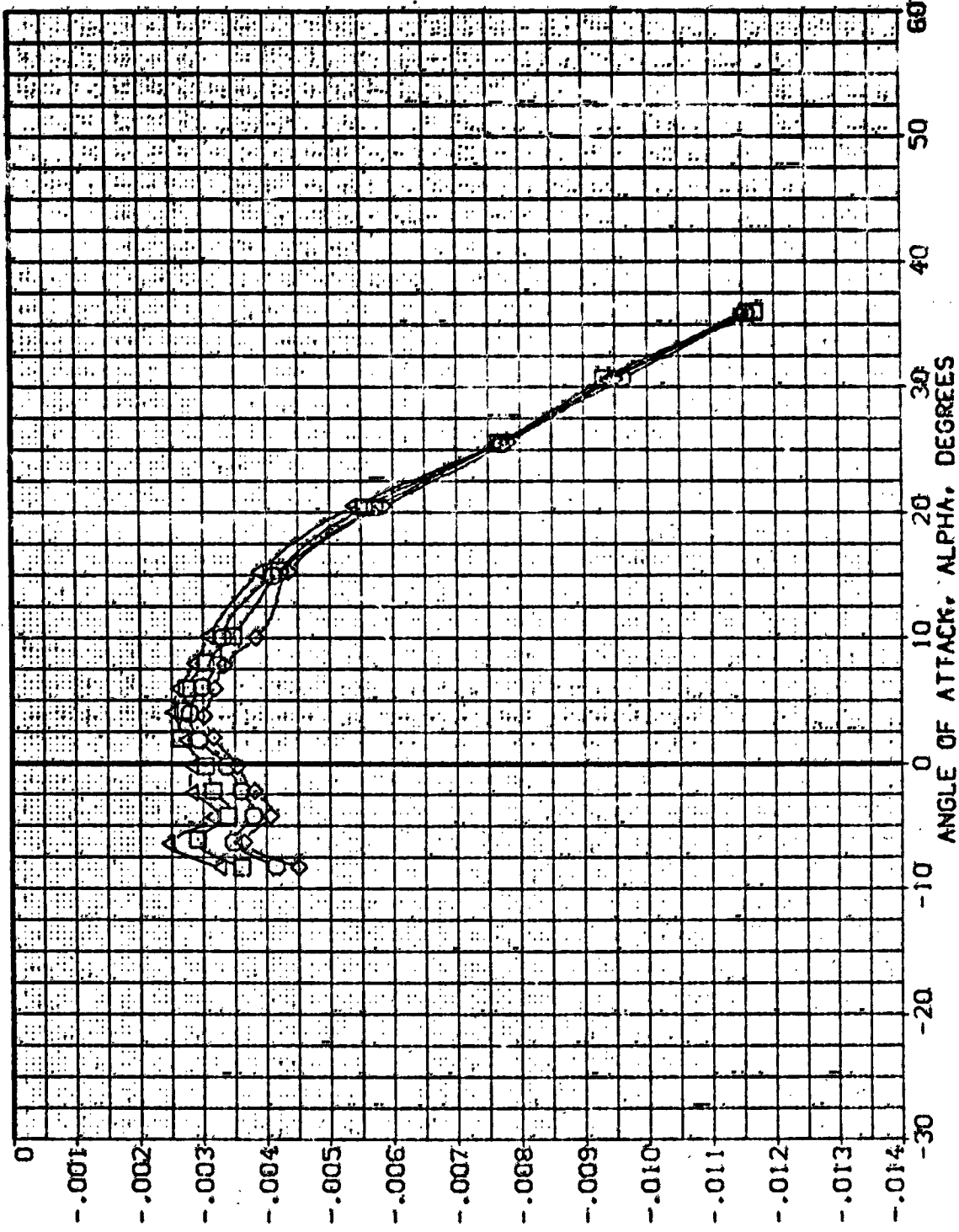


FIGURE 14. JET OFF AERO. ELEVON=-30. BDFLAP=-14.25. BETA=0
 (A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/CA	BOFLAP	BETA	REFERENCE INFORMATION	SO.FT.
(RJA092)	QIN84 LARC CFMT 118 (MA-22)	.000	.000	.000	3.000	SREF 2690.0000	INCHES
(RJA184)	QIN8550 LARC CFMT 118 (MA-22)	.000	.000	.000	3.000	LREF 474.8000	INCHES
(RJA138)	QIN51 LARC CFMT 118 (MA-22)	.000	.000	.000	3.000	BREF 936.6800	IN. IN
(RJA143)	QIN78 LARC CFMT 118 (MA-22)	.000	.000	.000	3.000	XREF 1076.7000	IN. IN
(RJA179)	QIN82 LARC CFMT 118 (MA-22)	.000	.000	.000	3.000	YREF 375.0000	IN. IN
(RJA220)	QIN83 LARC CFMT 118 (MA-22)	.000	.000	.000	3.000	ZREF .0100	IN. IN

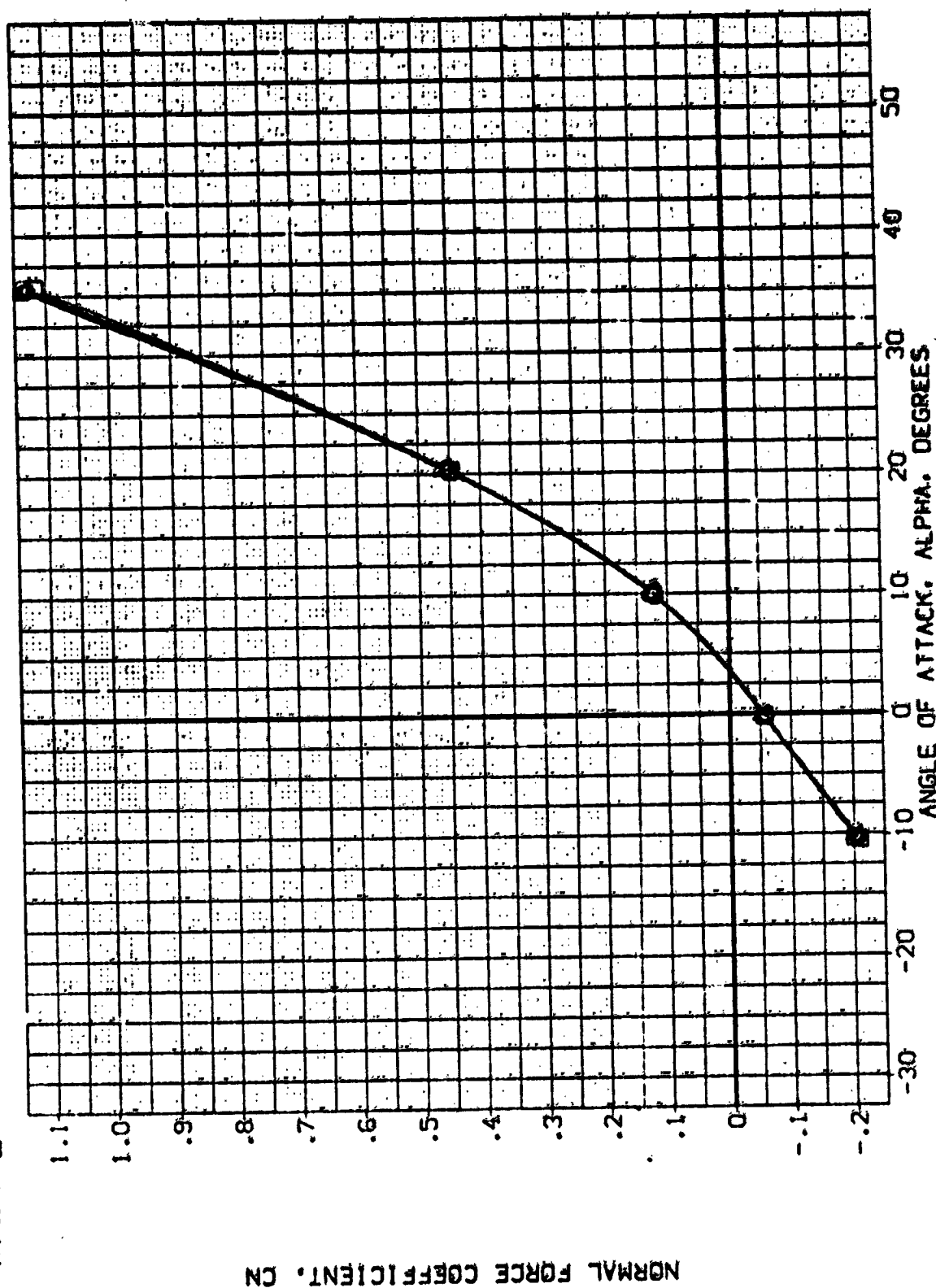


FIGURE 15. JET OFF AERO, ELEVON=0, BOFLAP=0, BETA=3

(MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	TQA	BOFLAP	BETA	REFERENCE INFORMATION
(RJA092)	Q1A84 LARC CFMT 118 (MA-221)	.000	.000	.000	3.000	SREF 2630.0000
(RJA104)	Q1A85 LARC CFMT 118 (MA-221)	.000	.000	.000	3.000	LREF 474.0000
(RJA138)	Q1A86 LARC CFMT 118 (MA-221)	.000	.000	.000	3.000	BREF 936.6800
(RJA145)	Q1A87 LARC CFMT 118 (MA-221)	.000	.000	.000	3.000	XPR 1076.7800
(RJA179)	Q1A88 LARC CFMT 118 (MA-221)	.000	.000	.000	3.000	YPR .0000
(RJA220)	Q1A89 LARC CFMT 118 (MA-221)	.000	.000	.000	3.000	ZPR 375.0000
						SCALE .0000

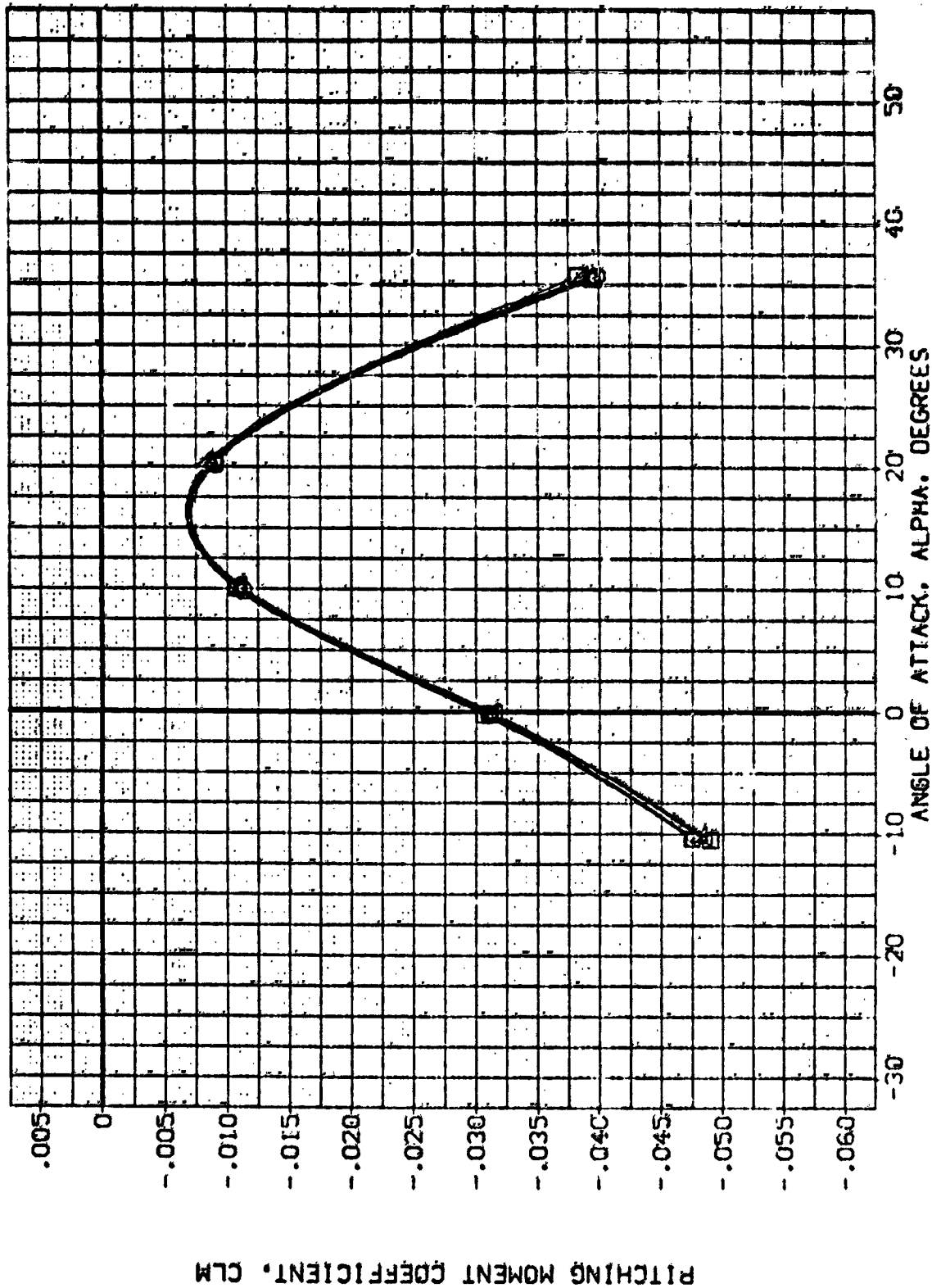
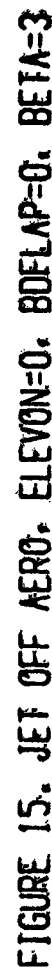


FIGURE 15. JET OFF AERO, ELEVON=0, BOFLAP=0, BETA=3

(A)MACH = 10.33

ELEVATION	TYPE	BOFLAP	BE.L	REFERENCE INFORMATION	SO. FT.
.000	.000	.000	3.000	SPEE	2850.0000
.000	.000	.000	3.000	LEEF	474.8000
.000	.000	.000	3.000	EFEE	936.5000
.000	.000	.000	3.000	XPAP	1076.1000
.000	.000	.000	3.000	TPAP	0.7000
.000	.000	.000	3.000	ZBAP	375.0000
.000	.000	.000	3.000	SCALE	.0100



CALMACH = 10.33.

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RJA092) QIN84 LARC CFMT 118 (MA-22)
 (RJA104) QIN85N50 LARC CFMT 118 (MA-22)
 (RJA138) QIN51 LARC CFMT 118 (MA-22)
 (RJA145) QIN78 LARC CFMT 118 (MA-22)
 (RJA179) QIN92 LARC CFMT 118 (MA-22)
 (RJA220) QIN83 LARC CFMT 118 (MA-22)

ELEVON T/OA BOFLAP BETA REFERENCE INFORMATION
 .000 .000 .000 SREF 2690.0000 50.00 FT.
 .000 .000 .000 LREF 474.8000 INCHES
 .000 .000 .000 BREF 536.6300 INCHES
 .000 .000 .000 XREF 1076.7000 IN. XZ
 .000 .000 .000 YREF .0000 IN. YZ
 .000 .000 .000 ZREF 375.0000 IN. ZZ
 .000 .000 .000 SCALE

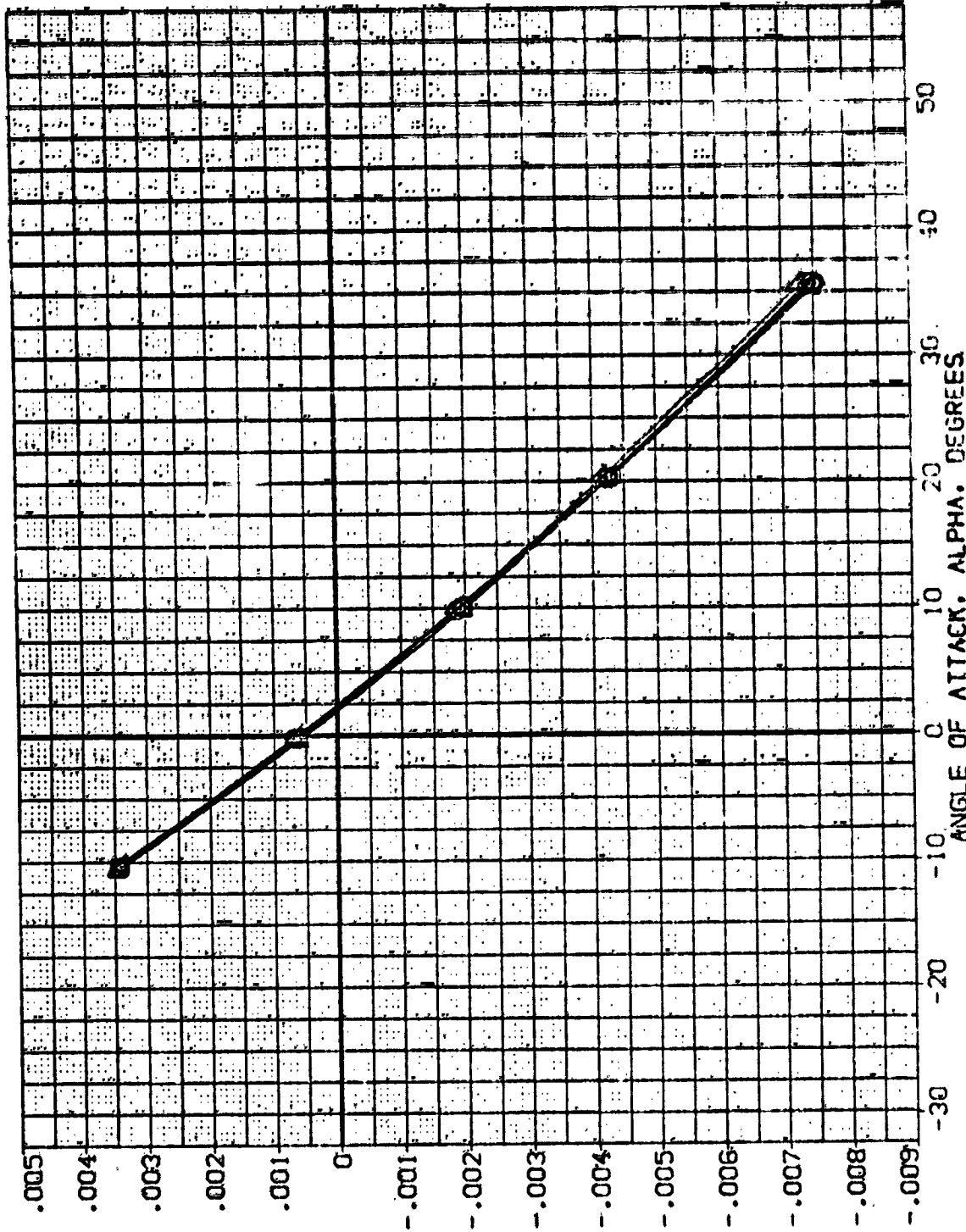


FIGURE 15. JET OFF AERO, ELEVON=0, BOFLAP=0, BETA=3

(AJMACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RJAP02)	Q1M84	LARC CFHT 118 (JA-22)
(RJAP04)	Q1M85	LARC CFHT 118 (JA-22)
(RJAP06)	Q1M86	LARC CFHT 118 (JA-22)
(RJAP08)	Q1M87	LARC CFHT 118 (JA-22)
(RJAP10)	Q1M88	LARC CFHT 118 (JA-22)
(RJAP12)	Q1M89	LARC CFHT 118 (JA-22)
(RJAP14)	Q1M90	LARC CFHT 118 (JA-22)

ELEVON TAOA BOFLAP BETA REFERENCE INFORMATION

ELEVON	TAOA	BOFLAP	BETA	SREF	SD, IN.
.000	.000	.000	3.000	2698.0000	INCHES
.000	.000	.000	3.000	474.6000	INCHES
.000	.000	.000	3.000	308.6000	INCHES
.000	.000	.000	3.000	1076.7000	IN. YD
.000	.000	.000	3.000	375.0000	IN. YD
.000	.000	.000	3.000	SCALE	.0100

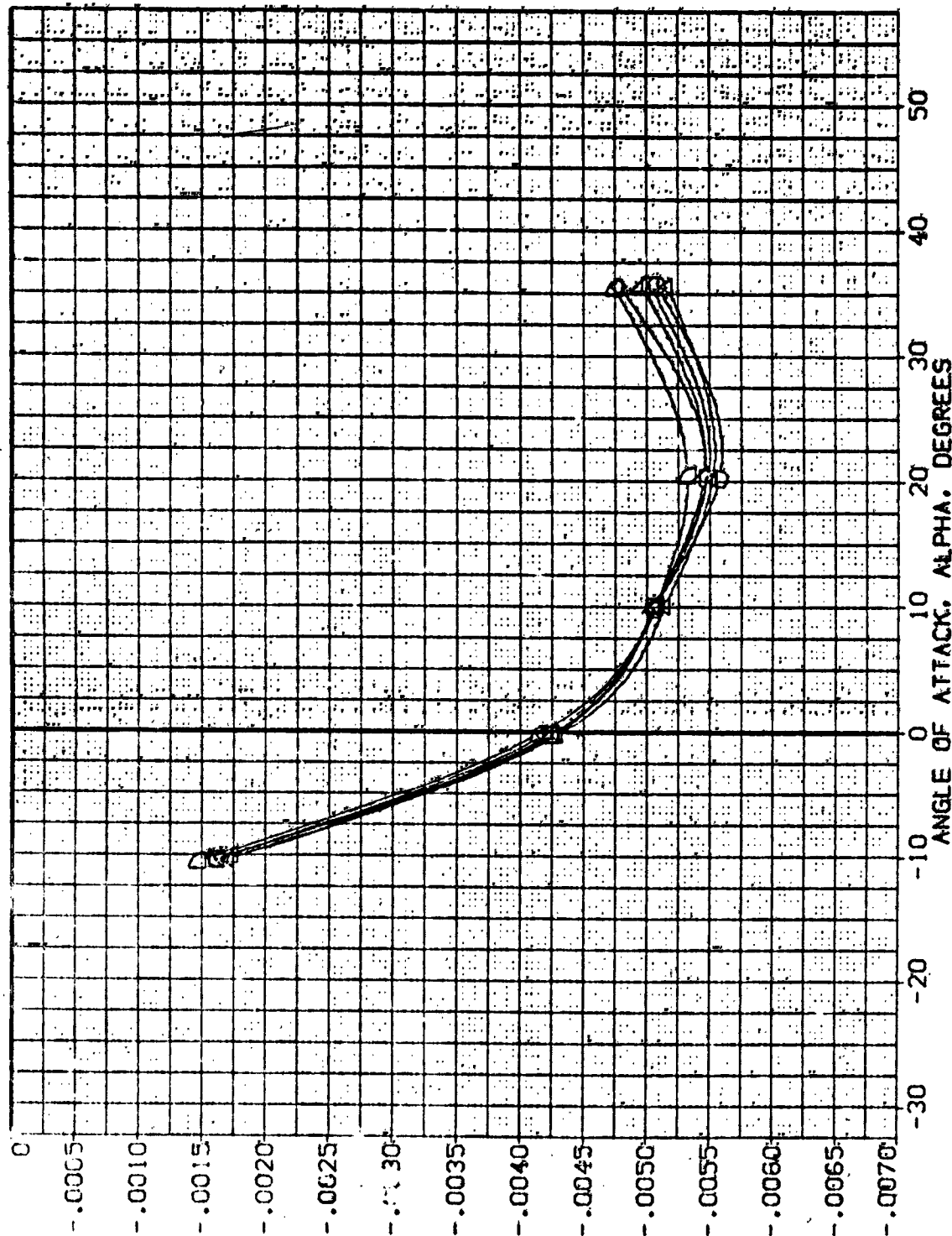


FIGURE 15. JET OFF AERO. ELEVON=0, BOFLAP=0, BETA=3

(A) MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AN. IN.	INCHES
(RJ092)	LARC CFHT 118 (MA-22)	2698.0000	IN. X0
(RJ104)	LARC CFHT 118 (MA-22)	474.8000	IN. Y0
(RJ138)	LARC CFHT 118 (MA-22)	935.6800	IN. Z0
(RJ145)	LARC CFHT 118 (MA-22)	1076.7000	IN. X0
(RJ179)	LARC CFHT 118 (MA-22)	373.0000	IN. Y0
(RJ220)	LARC CFHT 118 (MA-22)	373.0000	IN. Z0

Q1N84	Q1N85	Q1N86	Q1N87	Q1N88	Q1N89	Q1N90	Q1N91	Q1N92	Q1N93
Q1N94	Q1N95	Q1N96	Q1N97	Q1N98	Q1N99	Q1N100	Q1N101	Q1N102	Q1N103

SPCF	LREF	BREF	XPRP	YPRP	ZPRP	SCALE
3.000	3.000	3.000	3.000	3.000	3.000	3.000

ELEVON	FLUT	OUTLET	IN
.000	.000	.000	.000
.000	.000	.000	.000
.000	.000	.000	.000
.000	.000	.000	.000
.000	.000	.000	.000

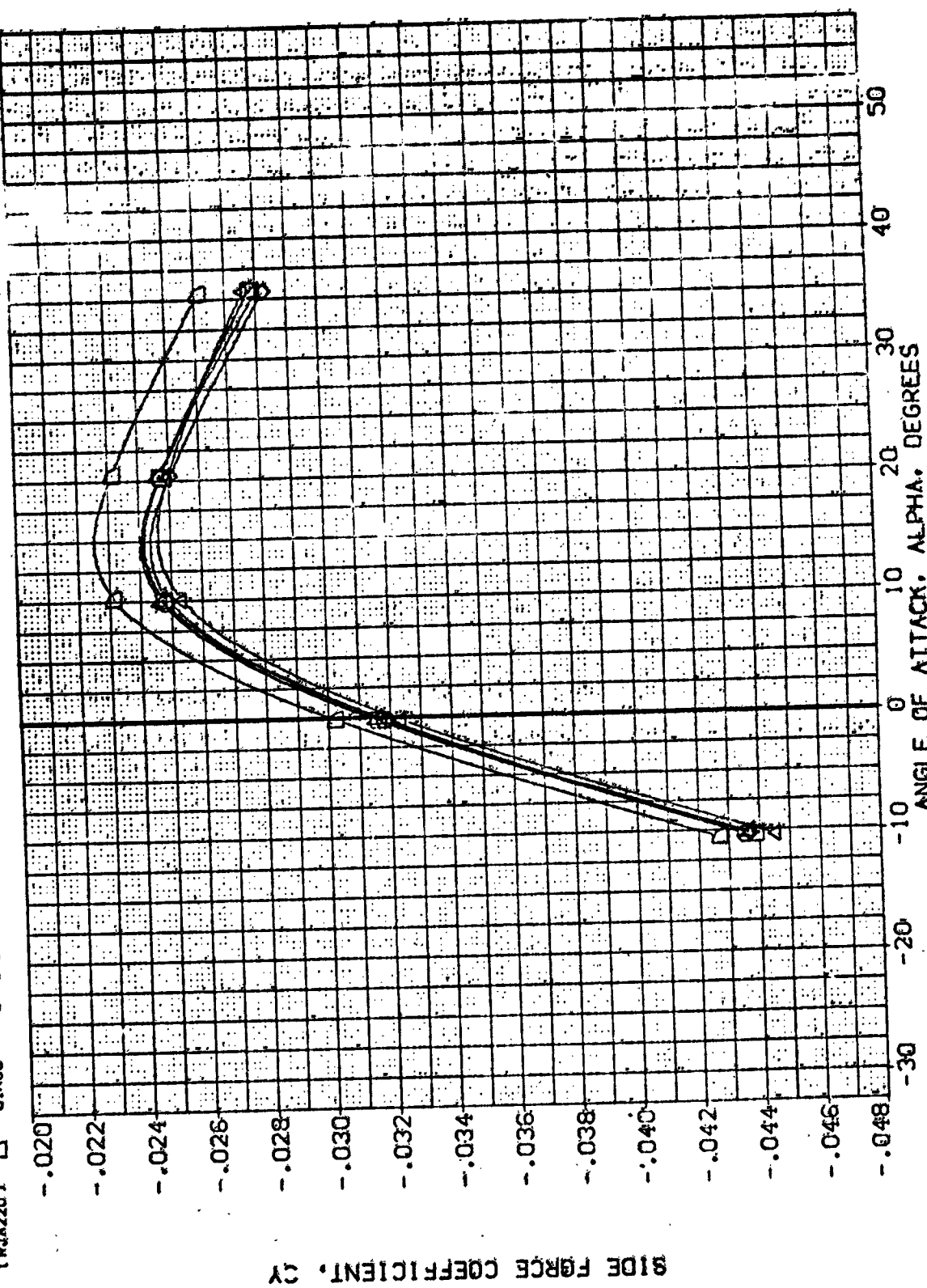


FIGURE 15. JET OFF AERC. ELEVON=0, BDFLAP=0, BETA=3
(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RJA091)	Q1N84	LARC CFHT 118 (MA-22)
(RJA103)	Q1N85N50	LARC CFHT 118 (MA-22)
(RJA137)	Q1N51	LARC CFHT 118 (MA-22)
(RJA144)	Q1N78	LARC CFHT 118 (MA-22)
(RJA178)	Q1N82	LARC CFHT 118 (MA-22)
(RJA219)	Q1N83	LARC CFHT 118 (MA-22)

ELEVON T/OA BDFLAP BETA REFERENCE INFORMATION:

ELEVON	T/OA	BDFLAP	BETA	SREF	2690.0000	50. FT.
.000	.000	.000	-3.000	LREF	474.8000	INCHES
.000	.000	.000	-3.000	BREF	936.6800	IN. X0
.000	.000	.000	-3.000	XMRP	1076.7000	IN. X0
.000	.000	.000	-3.000	YMRP	.0000	IN. Y0
.000	.000	.000	-3.000	ZMRP	375.0000	IN. Z0
.000	.000	.000	-3.000	SCALE	.0100	

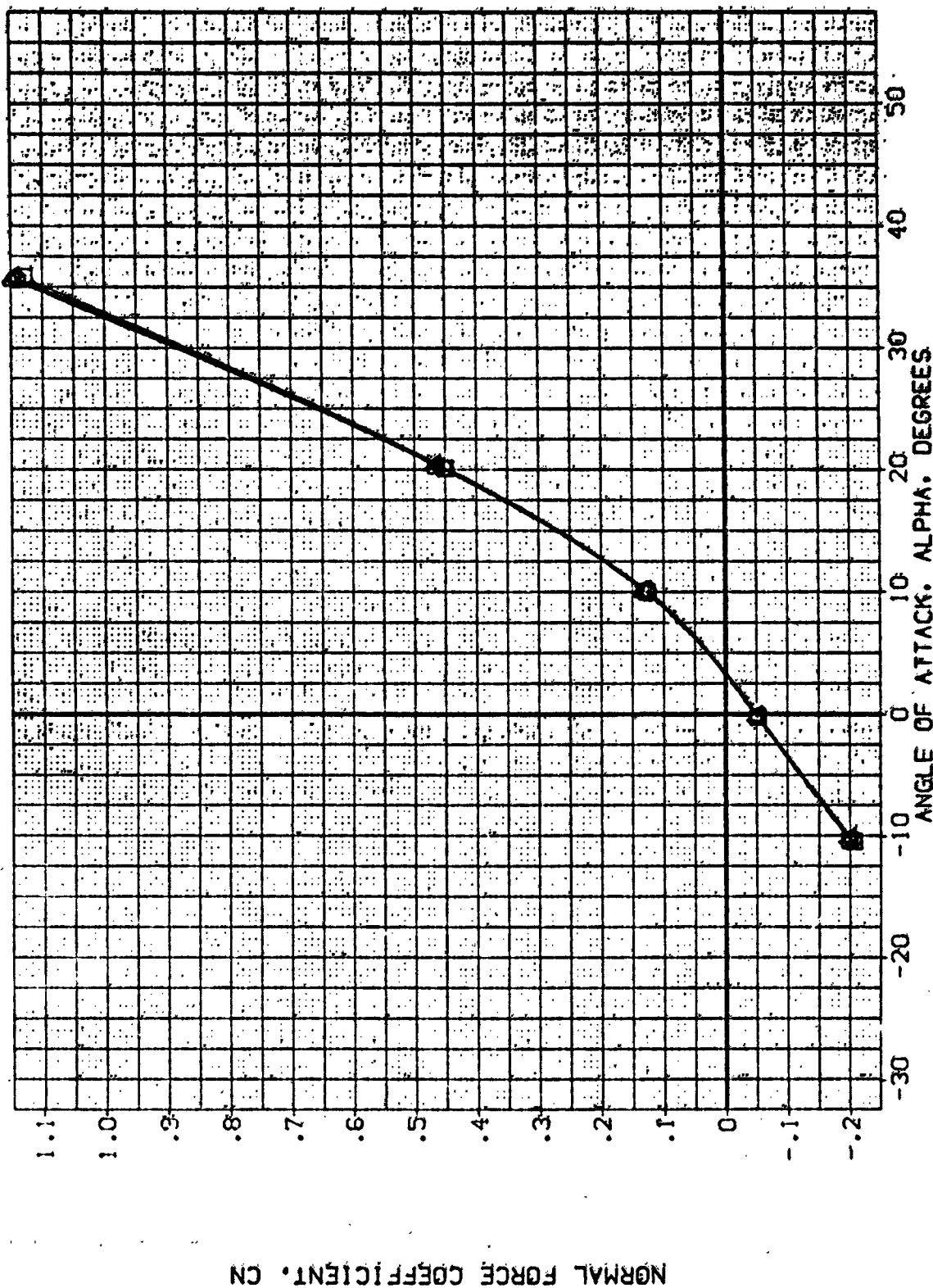


FIGURE 16. JET OFF AERO, ELEVON=0, BDFLAP=0, BETA=-3

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVON FLAP DELTA SREF LREF BREF XMRP YMRP ZMRP 50-FT. INCHES IN. X0 IN. Y0 IN. Z0
 (RJA091) LARC CFMT 118 (MA-221) .000 .000 -3.000 2690.0000 474.8000 936.6800 1076.7000 .0000 .0000 375.0000 50-FT. INCHES IN. X0 IN. Y0 IN. Z0
 (RJA103) LARC CFMT 118 (MA-221) .000 .000 -3.000 2690.0000 474.8000 936.6800 1076.7000 .0000 .0000 375.0000 50-FT. INCHES IN. X0 IN. Y0 IN. Z0
 (RJA137) LARC CFMT 118 (MA-221) .000 .000 -3.000 2690.0000 474.8000 936.6800 1076.7000 .0000 .0000 375.0000 50-FT. INCHES IN. X0 IN. Y0 IN. Z0
 (RJA144) LARC CFMT 118 (MA-221) .000 .000 -3.000 2690.0000 474.8000 936.6800 1076.7000 .0000 .0000 375.0000 50-FT. INCHES IN. X0 IN. Y0 IN. Z0
 (RJA178) LARC CFMT 118 (MA-221) .000 .000 -3.000 2690.0000 474.8000 936.6800 1076.7000 .0000 .0000 375.0000 50-FT. INCHES IN. X0 IN. Y0 IN. Z0
 (RJA219) LARC CFMT 118 (MA-221) .000 .000 -3.000 2690.0000 474.8000 936.6800 1076.7000 .0000 .0000 375.0000 50-FT. INCHES IN. X0 IN. Y0 IN. Z0

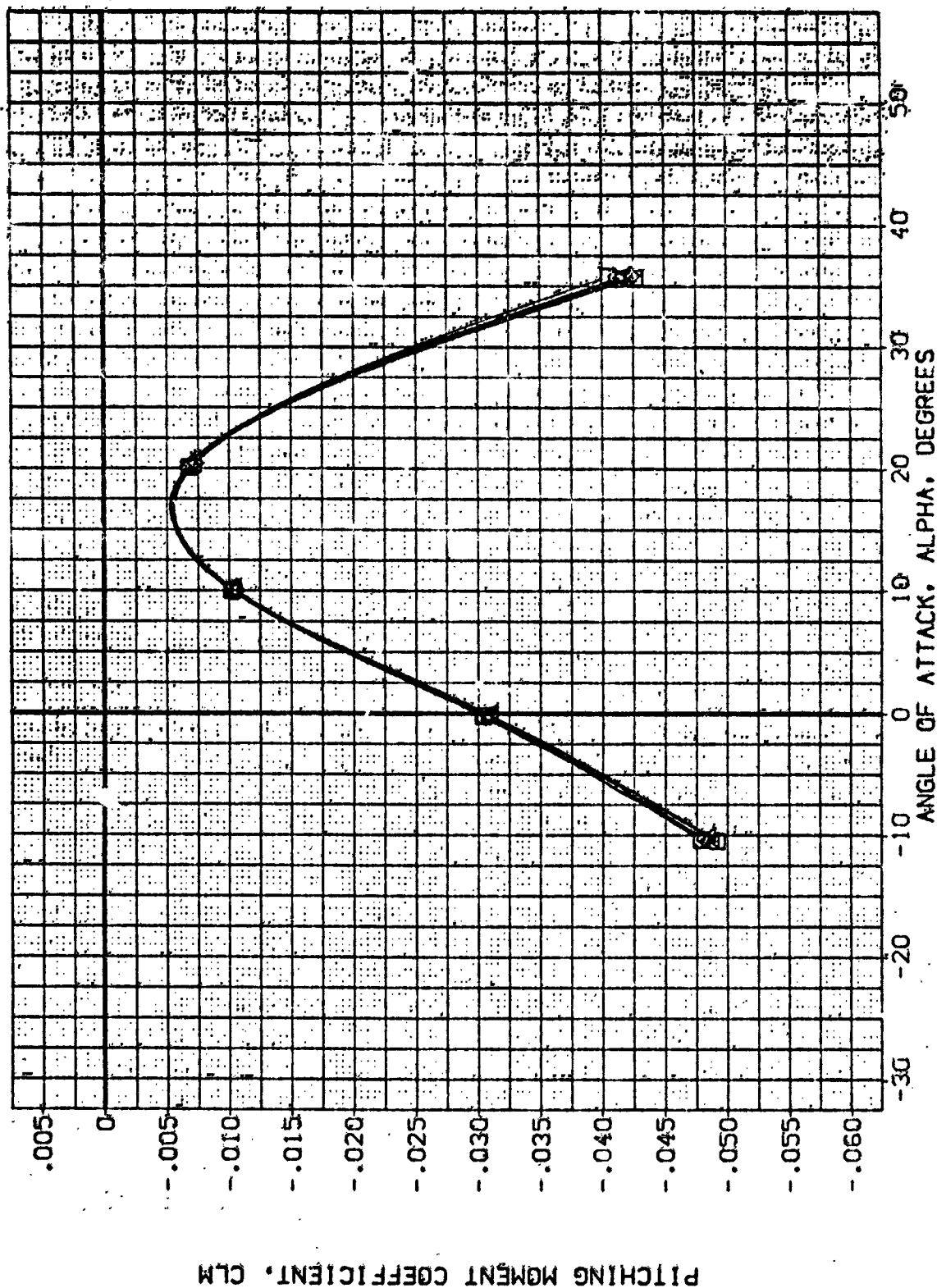


FIGURE 16. JET OFF AERO, ELEVON=0, BDFLAP=0, BETA=-3

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA	BD FLAP	BETA	REFERENCE INFORMATION
(P)1031	LARC CFHT 118 (MA-22)	.000	.000	.000	-3.000	SREF 2690.0000
(P)1032	LARC CFHT 118 (MA-22)	.000	.000	.000	-3.000	LREF 474.8000
(P)1033	LARC CFHT 118 (MA-22)	.000	.000	.000	-3.000	BREF 936.8000
(P)1034	LARC CFHT 118 (MA-22)	.000	.000	.000	-3.000	XMREF 1076.7000
(P)1035	LARC CFHT 118 (MA-22)	.000	.000	.000	-3.000	YMRP .0000
(P)1036	LARC CFHT 118 (MA-22)	.000	.000	.000	-3.000	ZMRP .0000
(P)1037	LARC CFHT 118 (MA-22)	.000	.000	.000	-3.000	SCALE .0100

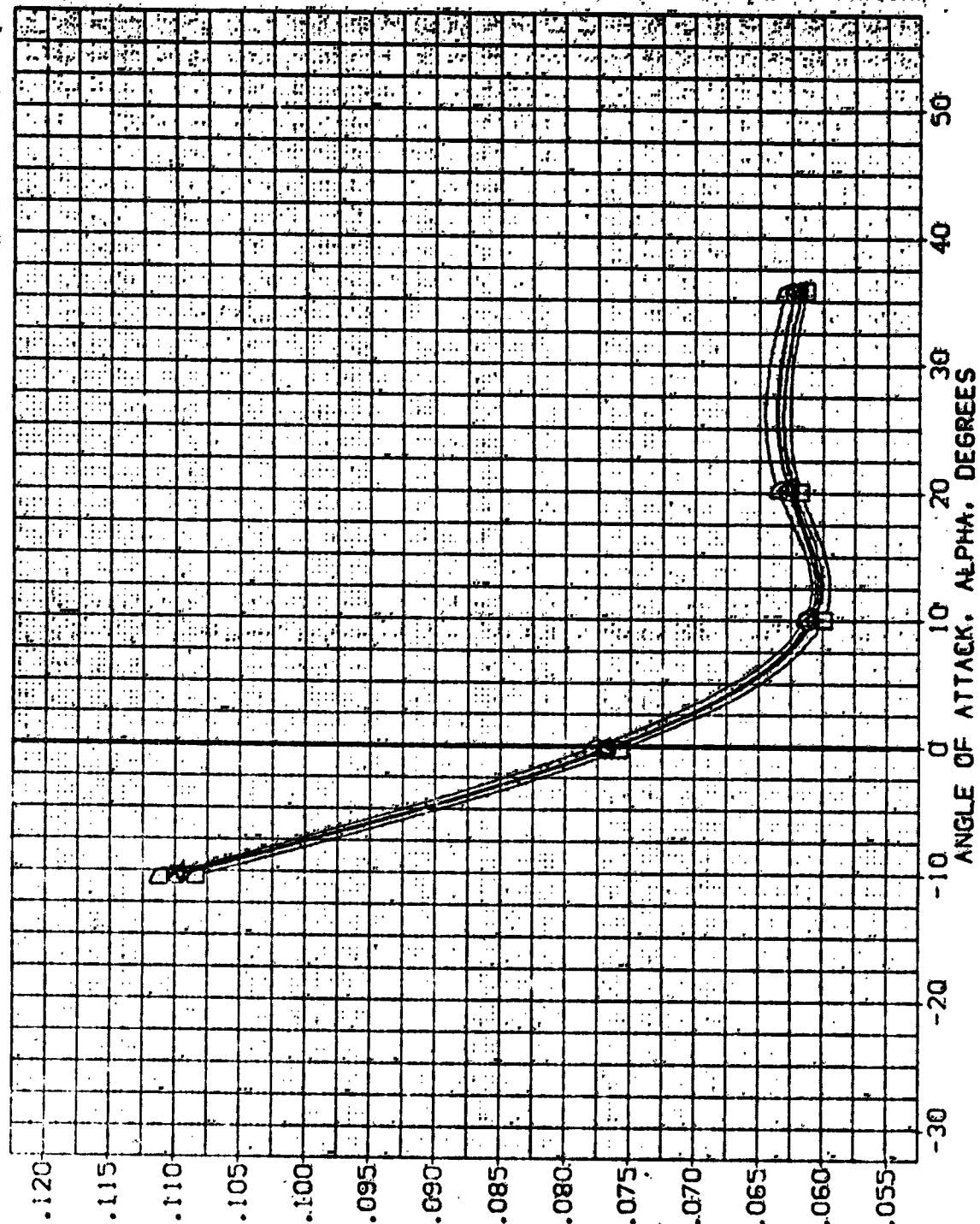


FIGURE 16. JET OFF AERO. ELEVON=0, BD FLAP=0, BETA=-3

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	BETA	WING AREA	WING CHORD	WING SPAN	WING AREA	WING CHORD	WING SPAN
(RJA091)	LARC CFMT 118 (MA-22)	.000	.000	-3.000	2690.0000	50.00	50.00	2690.0000	50.00	50.00
(RJA103)	LARC CFMT 118 (MA-22)	.000	.000	-3.000	474.8800	10.00	10.00	474.8800	10.00	10.00
(RJA137)	LARC CFMT 118 (MA-22)	.000	.000	-3.000	936.6800	10.00	10.00	936.6800	10.00	10.00
(RJA144)	LARC CFMT 118 (MA-22)	.000	.000	-3.000	1076.7000	10.00	10.00	1076.7000	10.00	10.00
(RJA178)	LARC CFMT 118 (MA-22)	.000	.000	-3.000	375.0000	10.00	10.00	375.0000	10.00	10.00
(RJA219)	LARC CFMT 118 (MA-22)	.000	.000	-3.000	375.0000	10.00	10.00	375.0000	10.00	10.00

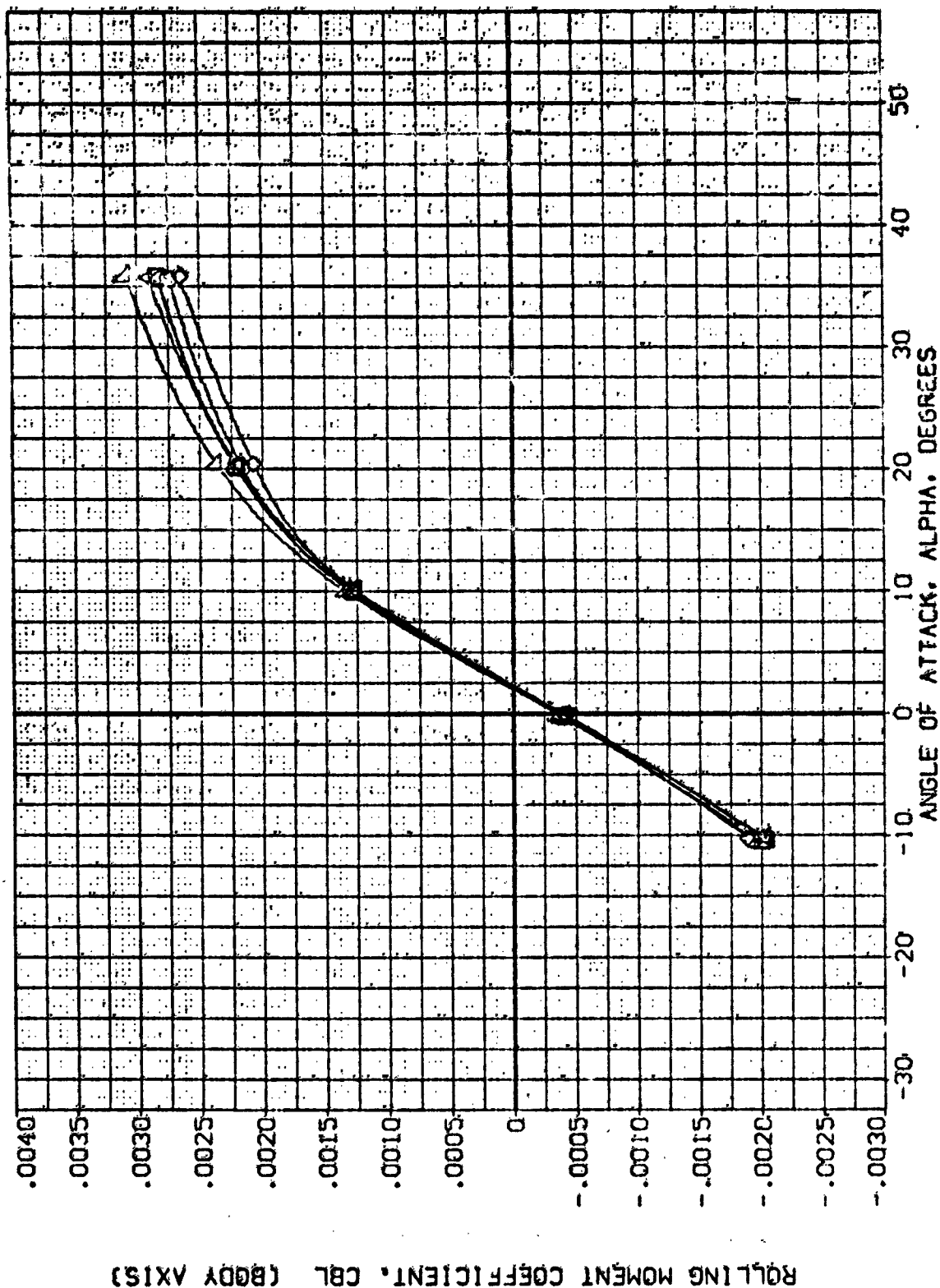


FIGURE 16. JET OFF AERO. ELEVON=0, BOFLAP=0, BETA=-3

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RJA091) QIN84 LARC CFHT 118 (MA-22)

(RJA103) QIN85W50 LARC CFHT 118 (MA-22)

(RJA120) QIN85 LARC CFHT 118 (MA-22)

(RJA144) QIN78 LARC CFHT 118 (MA-22)

(RJA178) QIN82 LARC CFHT 118 (MA-22)

(RJA219) QIN93 LARC CFHT 118 (MA-22)

ELEVON T/BA BOFLAP BETA REFERENCE INFORMATION

.000 .000 .000 -3.000 SREF 2690.0000 50. FT.

.000 .000 .000 -3.000 LREF 474.8000 INCHES

.000 .000 .000 -3.000 BREF 938.6800 INCHES

.000 .000 .000 -3.000 XMRP 1076.7000 IN. X0

.000 .000 .000 -3.000 YMRP 373.0000 IN. Y0

.000 .000 .000 -3.000 ZMRP .0100 IN. Z0

SCALE

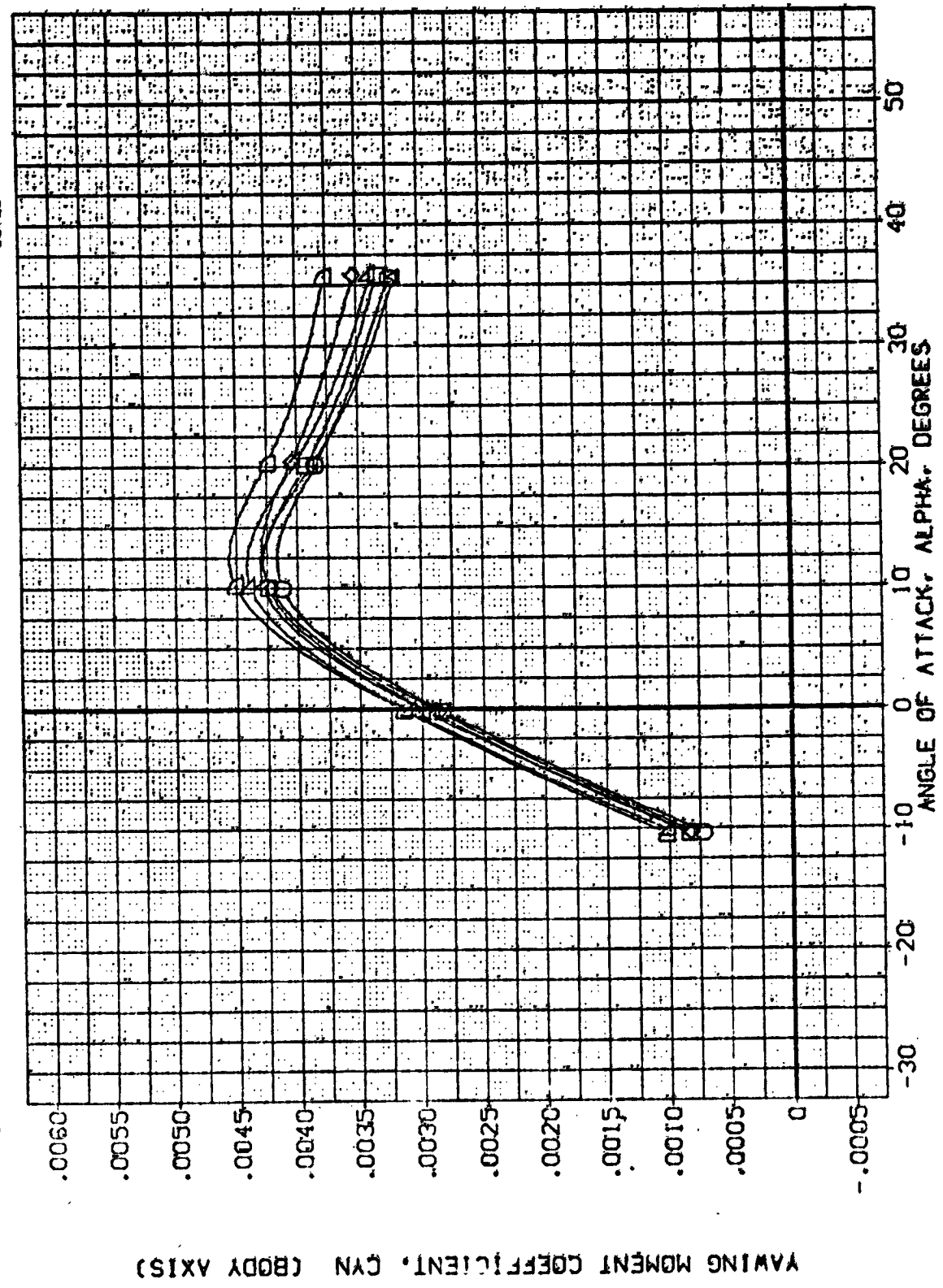


FIGURE 16. JET OFF AERO, ELEVON=0, BOFLAP=0, BETA=-3

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION METER	WINDSPEED METER	TEMPERATURE INFLUENCE DEGREE C	S9-FT. INCHES	S9-FT. INCHES
(RJ0891)	G1NB4 LARC CFHT 118 (MA-221)	.000	.000	-3.000	2650-.0000	SREF
(RJ1033)	D1NBNSD LARC CFHT 118 (MA-221)	.000	.000	-3.000	474-.8000	LARK
(RJ1137)	LARC CFHT 118 (MA-221)	.000	.000	-3.000	936-.6800	SREF
(RJ1144)	LARC CFHT 118 (MA-221)	.000	.000	-3.000	1076-.2000	MREP
(RJ1287)	LARC CFHT 118 (MA-221)	.000	.000	-3.000	1N+.V0	IN+.V0
(RJ178B)	LARC CFHT 118 (MA-221)	.000	.000	-3.000	375-.0000	MREP
(RJ2197)	D1NB3 LARC CFHT 118 (MA-221)	.000	.000	-3.000	.0100	SCALE

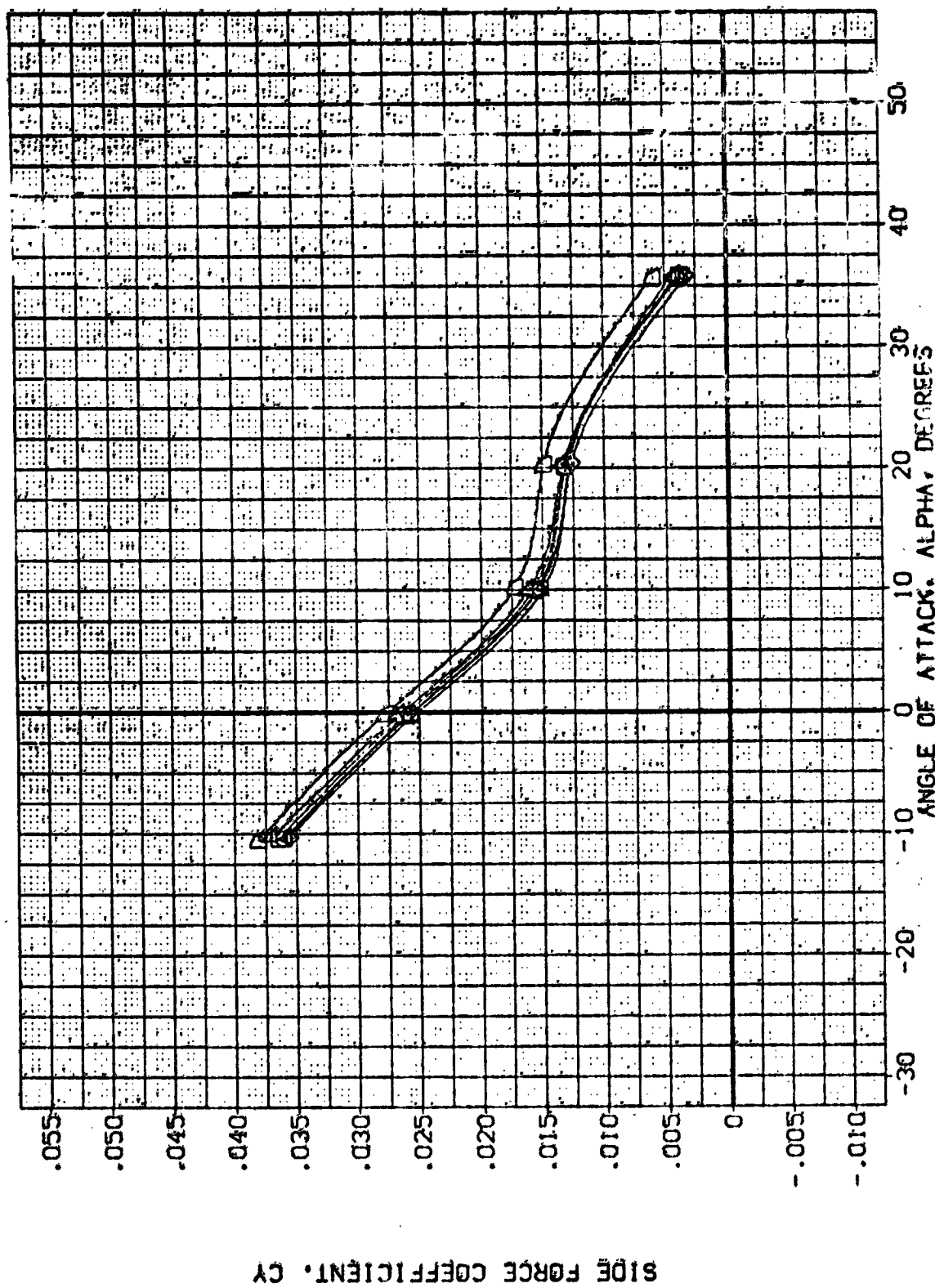


FIGURE 16. JET OFF AERO, ELEVON=0, BDFLAP=0, BETA=-3

$$[A]_{MACH} = 10.33$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	BOFLAP	T/OA	REFERENCE INFORMATION
(EJA.158)	POSITIVE ONE SIGMA DEVIATION FROM MEAN	.000	.000	.000	.000	SREF 2690.0000 SQ. FT.
(EJA.159)	MEAN OF 13 DATASETS	.000	.000	.000	.000	LREF 474.8000 INCHES
(EJA.160)	NEGATIVE ONE SIGMA DEVIATION FROM MEAN	.000	.000	.000	.000	BREF 536.6800 INCHES
						XMRP 1076.7000 IN. XD
						YMRP .0800 IN. YD
						ZMRP 375.0000 IN. ZD
						SCALE .0100

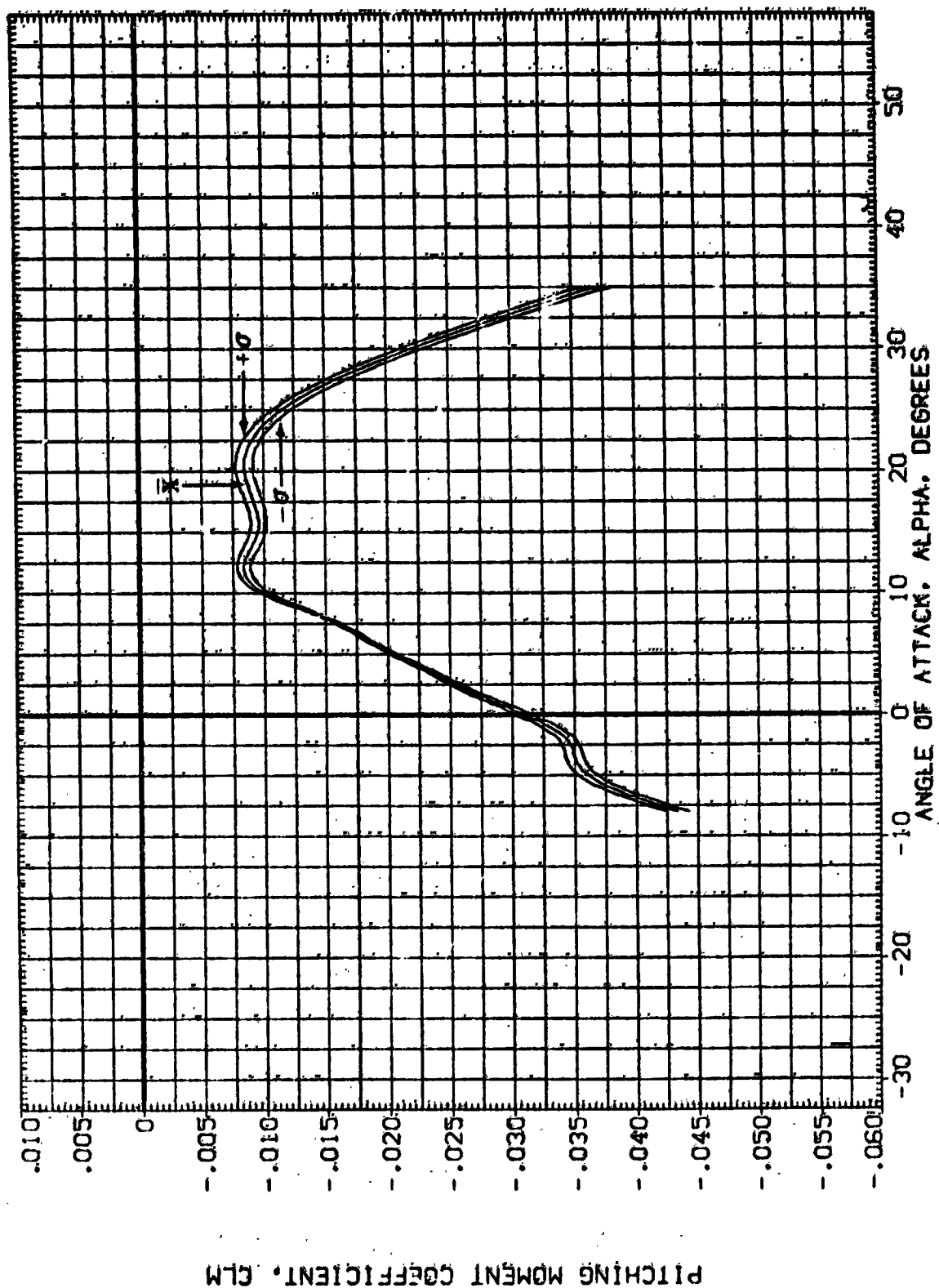


FIGURE 17. MEAN AND STANDARD DEVIATION FOR VARIATION WITH ALPHA

(A)MACH = 10.33

BETA	ELEVATION	BOFLAP	T/OA	REFERENCE INFORMATION	50 FT. INCHES
.000	.000	.000	.000	SREF	50.0000
.000	.000	.000	.000	LREF	74.8000
.000	.000	.000	.000	BREF	36.5800
.000	.000	.000	.000	XREF	1076.7000
				TEMP	9.0000
				ZRRP	375.0000
				SCALE	.0100

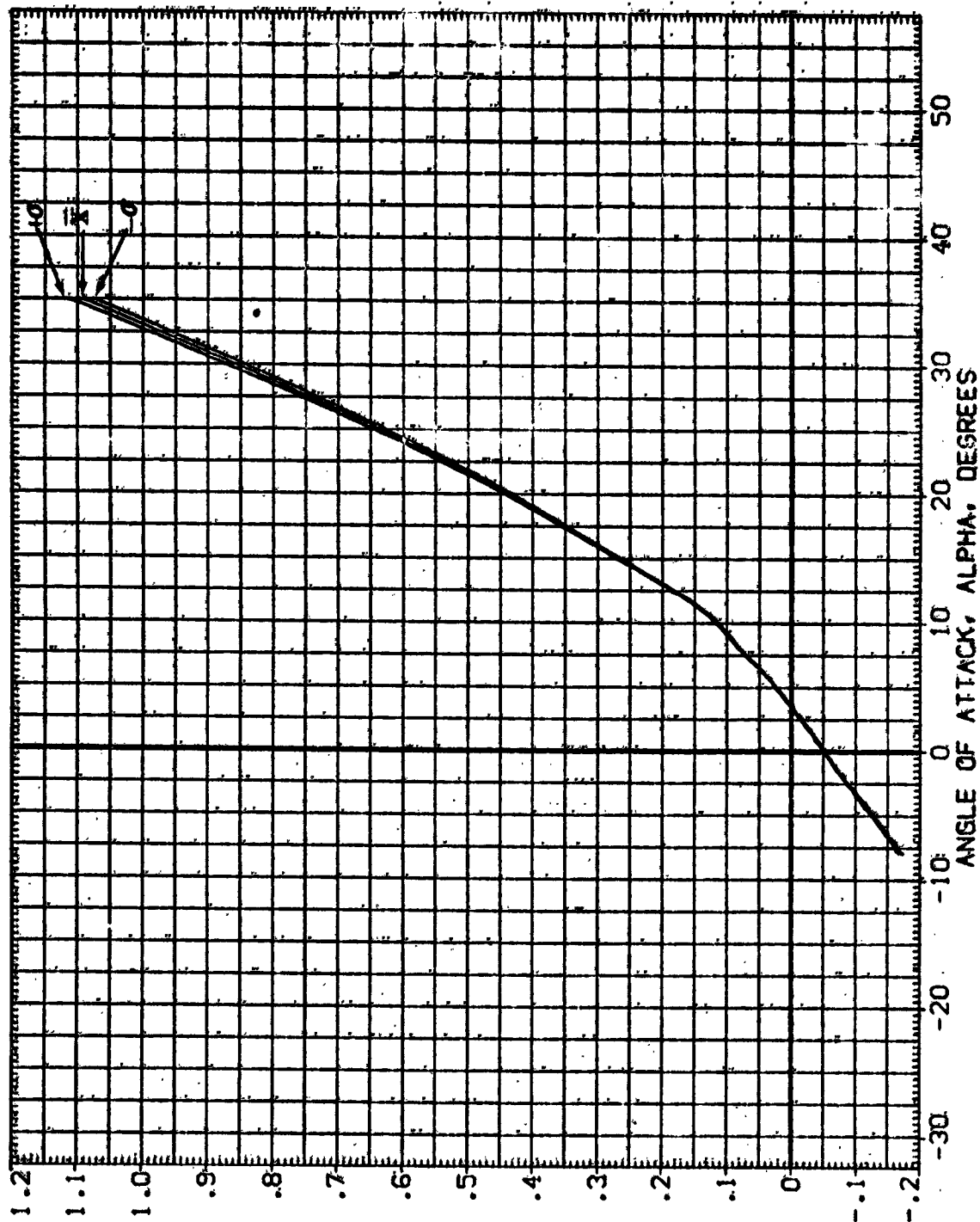


FIGURE 17. MEAN AND STANDARD DEVIATION FOR VARIATION WITH ALPHA

CALMACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FJMSG) POSITIVE ONE SIGMA DEVIATION FROM MEAN
 (WJMSG) MEAN OF 6 DATASETS
 (FJMSG) NEGATIVE ONE SIGMA DEVIATION FROM MEAN

ALPHA ELEVON BDELAP T/OA REFERENCE INFORMATION
 .000 .000 .000 .000 SREP 2690.0000 SQ.FT.
 .000 .000 .000 .000 LREF 474.8000 INCHES
 .000 .000 .000 .000 BREF 936.6800 INCHES
 .000 .000 .000 .000 XMRP 1076.7000 IN. XG
 .000 .000 .000 .000 YMRP 325.0000 IN. YG
 .000 .000 .000 .000 ZMRP 325.0000 IN. ZG
 .000 .000 .000 .000 SCALE .0100

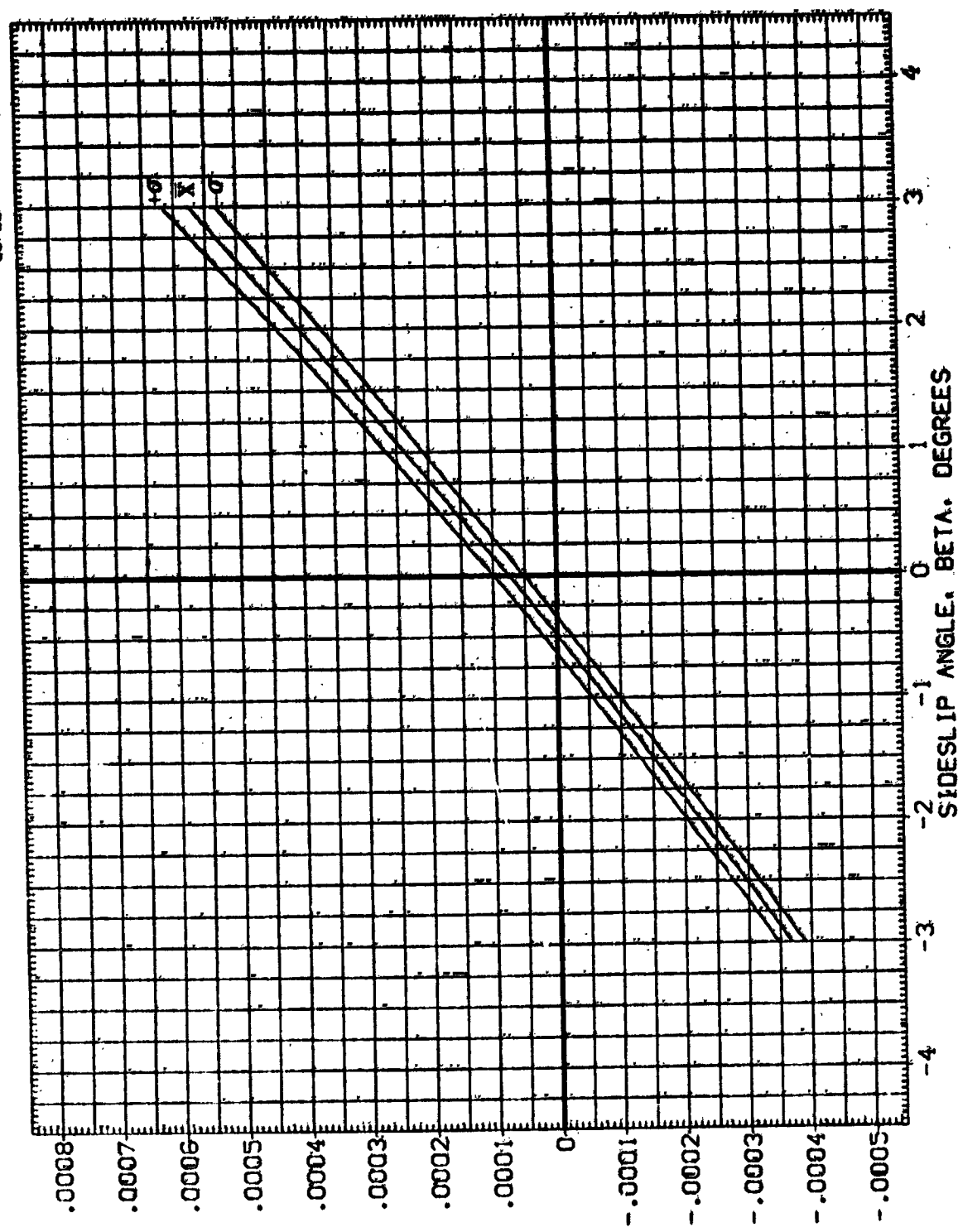


FIGURE 18. MEAN AND STANDARD DEVIATION FOR VARIATION WITH BETA

(A)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ELEVON	BD FLAP	T/OA	REFERENCE INFORMATION
(FJA1SG)	POSITIVE ONE SIGMA DEVIATION FROM MEAN	.000	.000	.000	.000	2690.0000
(FJA1SG)	MEAN OF 6 DATASETS	.000	.000	.000	.000	474.9000
(FJA1SG)	NEGATIVE ONE SIGMA DEVIATION FROM MEAN	.000	.000	.000	.000	536.8900
						10.5.0000
						375.8000
						3163

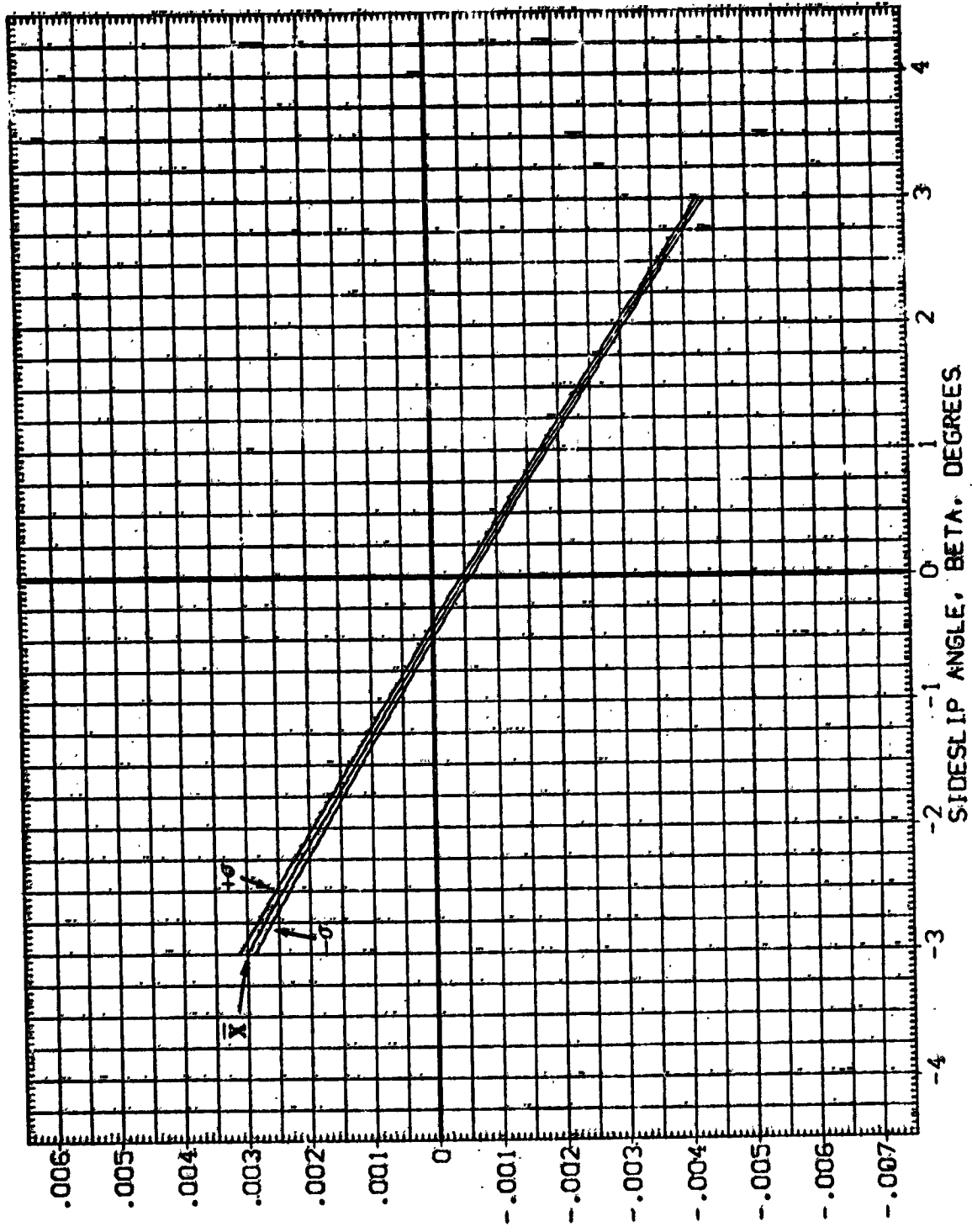


FIGURE 18. MEAN AND STANDARD DEVIATION FOR VARIATION WITH BETA

(A)MACH = 10.30

DATA SET SYMBOL: 8
 CONFIGURATION DESCRIPTION: MEAN OF 13 DATASETS
 MAXIMUM VALUES FROM 13 DATASETS
 MINIMUM VALUES FROM 13 DATASETS

GEPA: .000
 ELEVON: .000
 BOFLAP: .000
 T/BA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SQ. FT.
 LREF: 474.8800 INCHES
 BREF: 936.8800 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

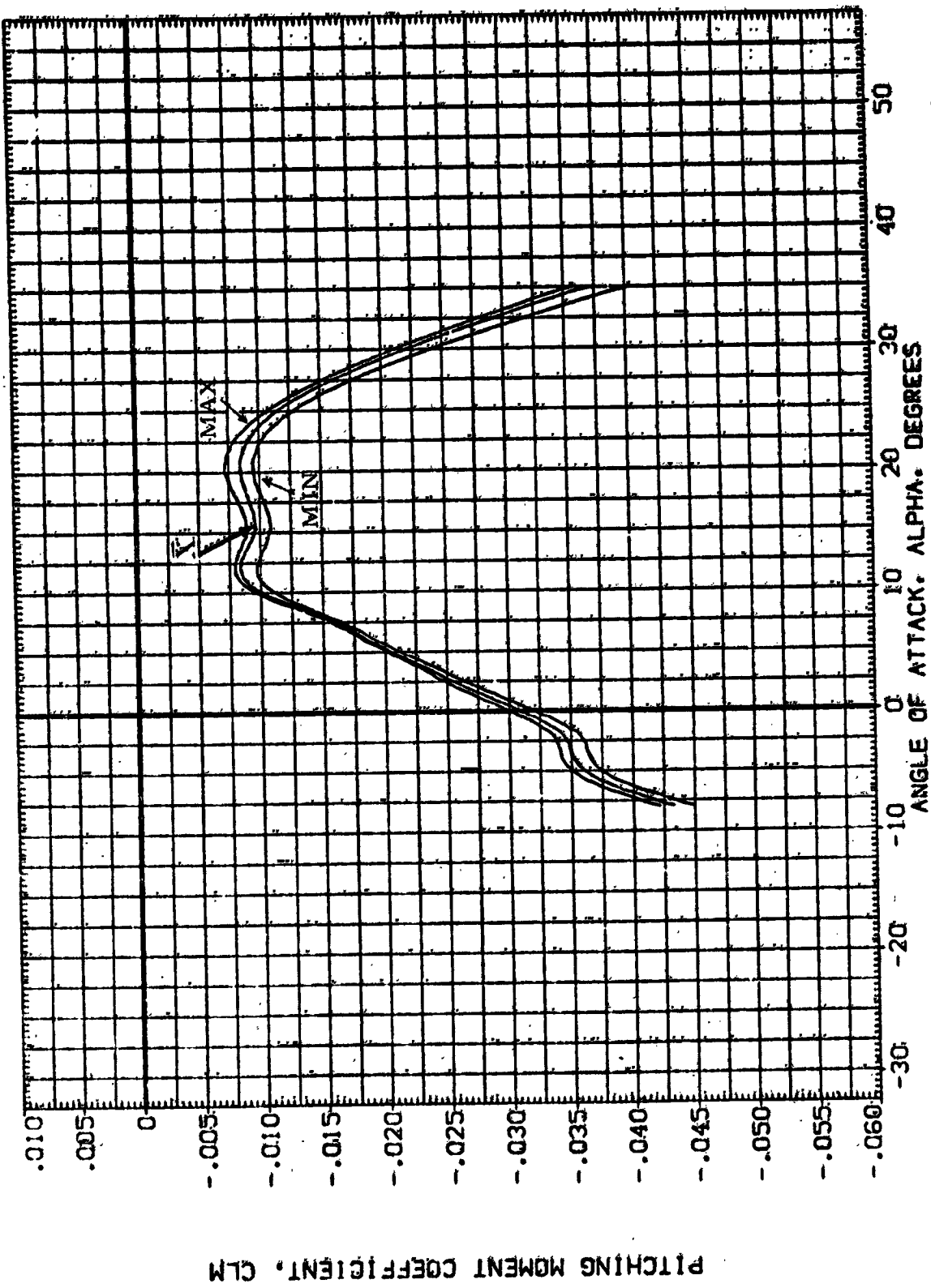


FIGURE 19. MEAN, MAXIMUM, AND MINIMUM FOR VARIATION WITH ALPHA

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(XJAMEA)	MEAN OF 13 DATASETS
(XJAMAX)	MAXIMUM VALUES FROM 13 DATASETS
(XJAMIN)	MINIMUM VALUES FROM 13 DATASETS

BETA	ELEVON	BOFLAP	T/GA
.000	.000	.000	.00
.050	.000	.000	.00
.600	.000	.000	.00

REFERENCE INFORMATION		SO. FT.	INCHES
SREF	2690.0000	IN.	YD
LREF	474.8000	IN.	YD
BREF	936.6500	IN.	YD
XPREF	1076.7000	IN.	YD
YMPREF	0.0000	IN.	YD
ZMPREF	375.0000	IN.	YD
SCALE	0.0100	IN.	YD

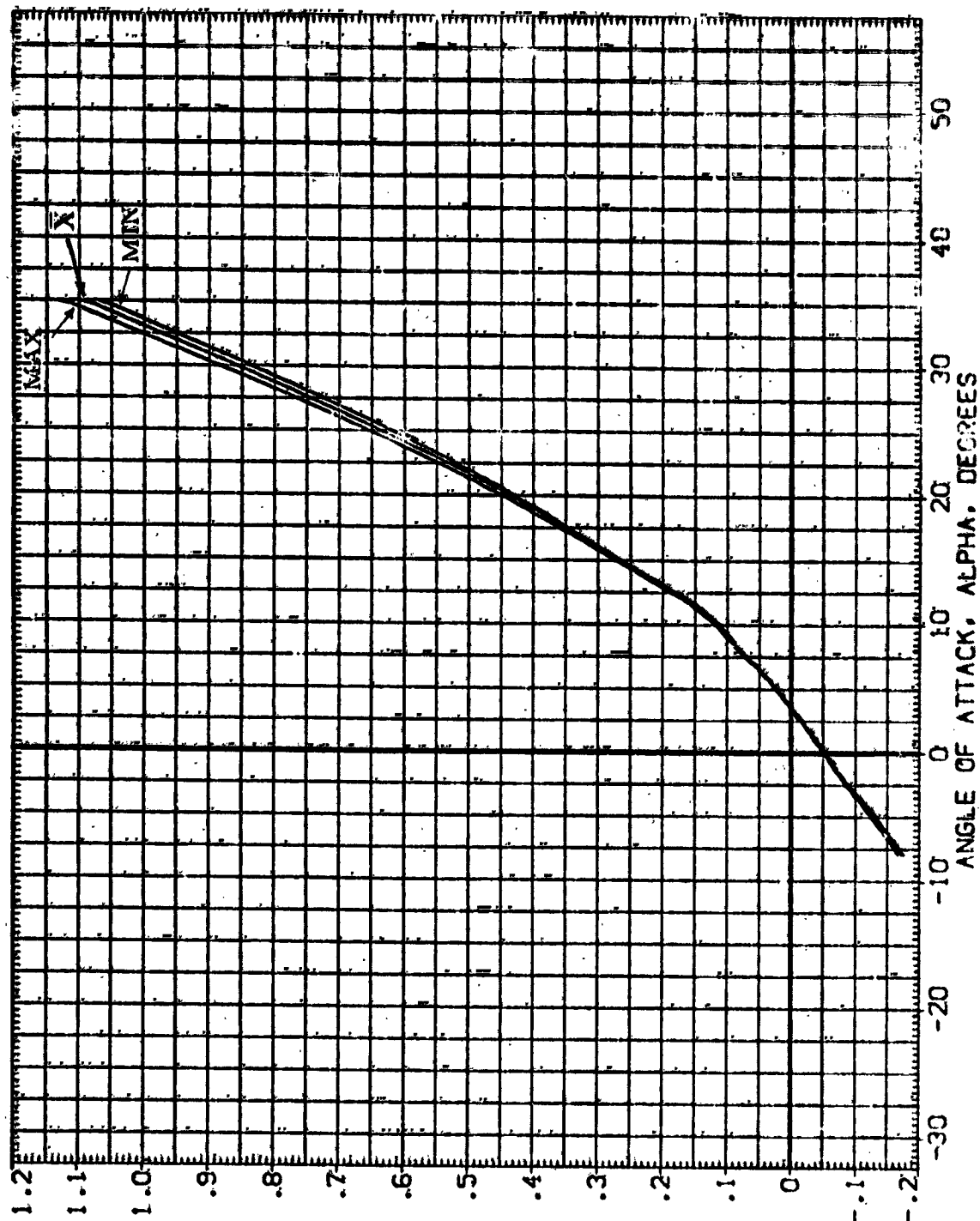


FIGURE 19. MEAN, MAXIMUM, AND MINIMUM FOR VARIATION WITH ALPHA

[A]MACH. = 10.33

DATA SET SYMBOL: 3
 CONFIGURATION DESCRIPTION: MEAN OF 6 DATASETS
 MAXIMUM VALUES FROM 6 DATASETS
 MINIMUM VALUES FROM 6 DATASETS

ALPHA: .000
 BOFLAP: .000
 ELEVON: .000
 T/OA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000
 LREF: 474.8000
 BREF: 936.6900
 YMRP: 1076.7000
 ZMRP: 379.0000
 SCALE: .0100

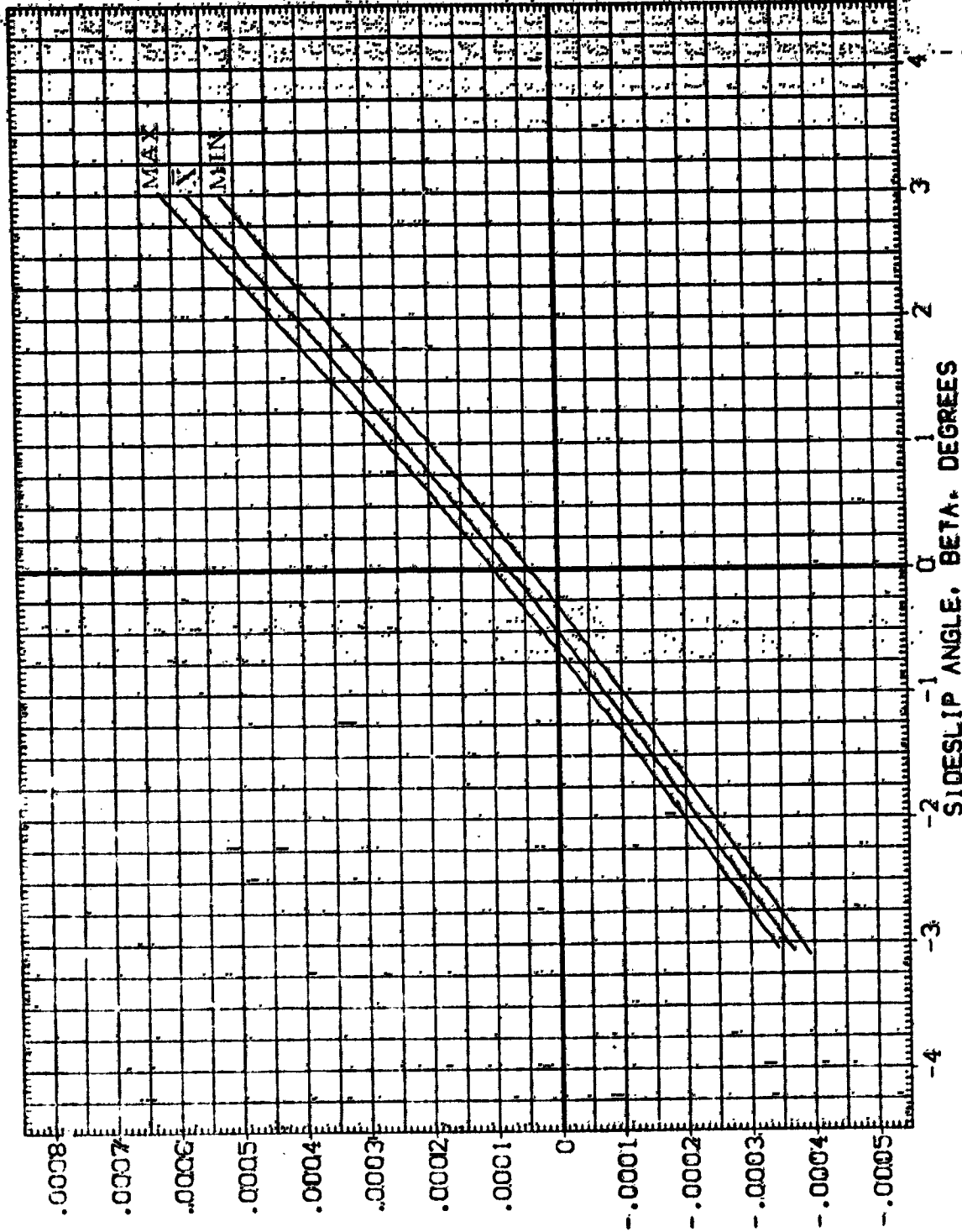


FIGURE 20. MEAN, MAXIMUM, AND MINIMUM FOR VARIATION WITH BETA

(AJMACH = 10.30)

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

DATA SET: S-100L
 (WJAMEA) MEAN OF 6 DATASETS
 (WJAMAX) MAXIMUM VALUES FROM 6 DATASETS
 (WJAMIN) MINIMUM VALUES FROM 6 DATASETS

ALPHA .000
 ELEVON .000
 BDFLAP .000
 T/DA .000
 SREF 2690.0000
 LREF 474.8000
 BREF 936.6800
 XMRP 1076.7000
 YMRP .0800
 ZMRP 375.0000
 SCALE .0100

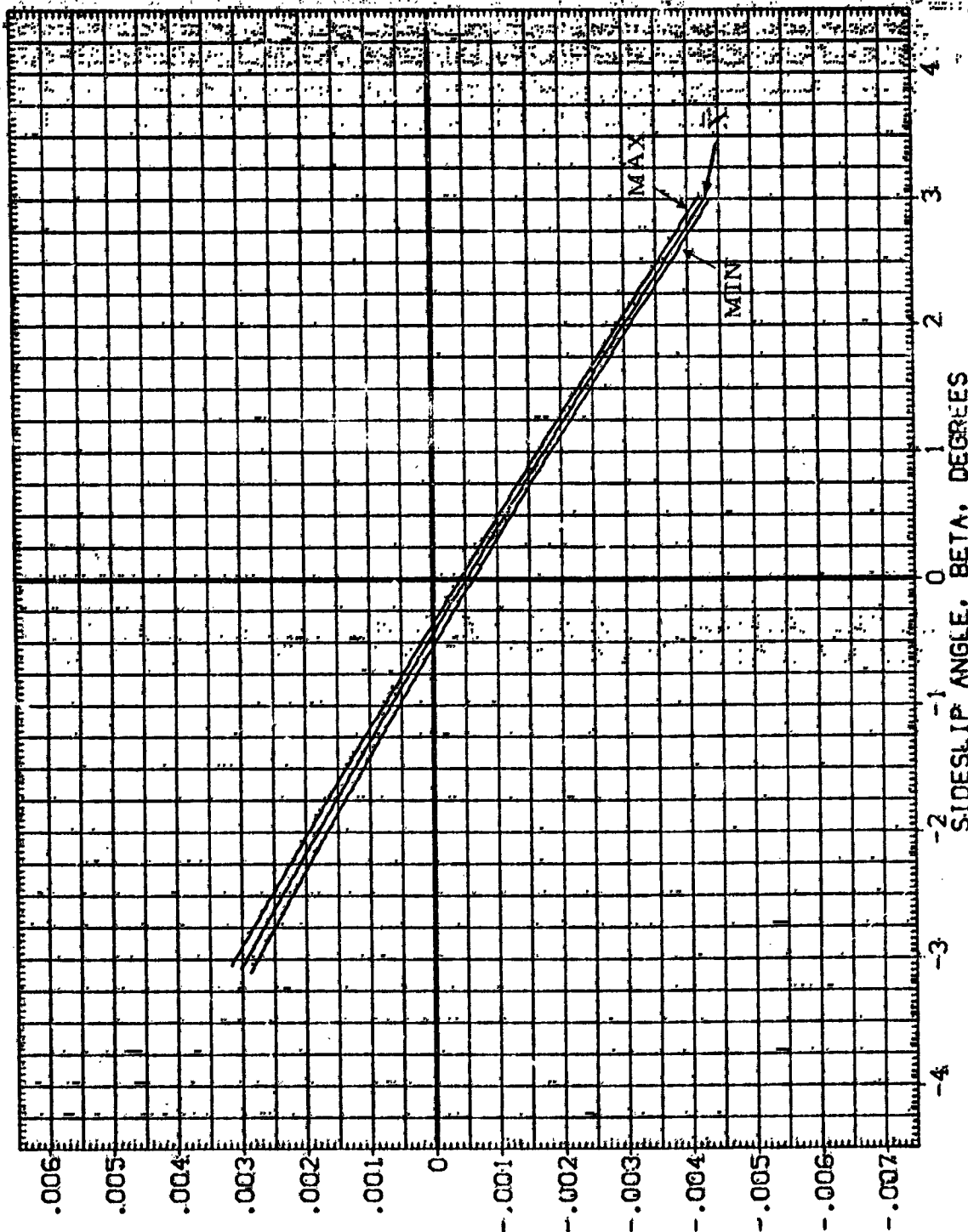


FIGURE 20. MEAN, MAXIMUM, AND MINIMUM FOR VARIATION WITH BETA

(M)MACH = 10.30

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/GA-1	BDCLAP	ALPHA	REFERENCE INFORMATION
(WJAO07)	01N49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	95.000	.000	.000	SREF 1650.0000 50. FT.
(WJAO08)	01N49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	95.000	.000	-10.000	LREF 174.8000 INCHES
(WJAO09)	01N49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	95.000	.000	20.000	BREF 936.5800 IN. X0
(WJAO10)	01N49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	95.000	.000	35.000	XREF 1076.2000 IN. Y0
						ZREF 375.0000 IN. Z0
						SCALE: 1/0100

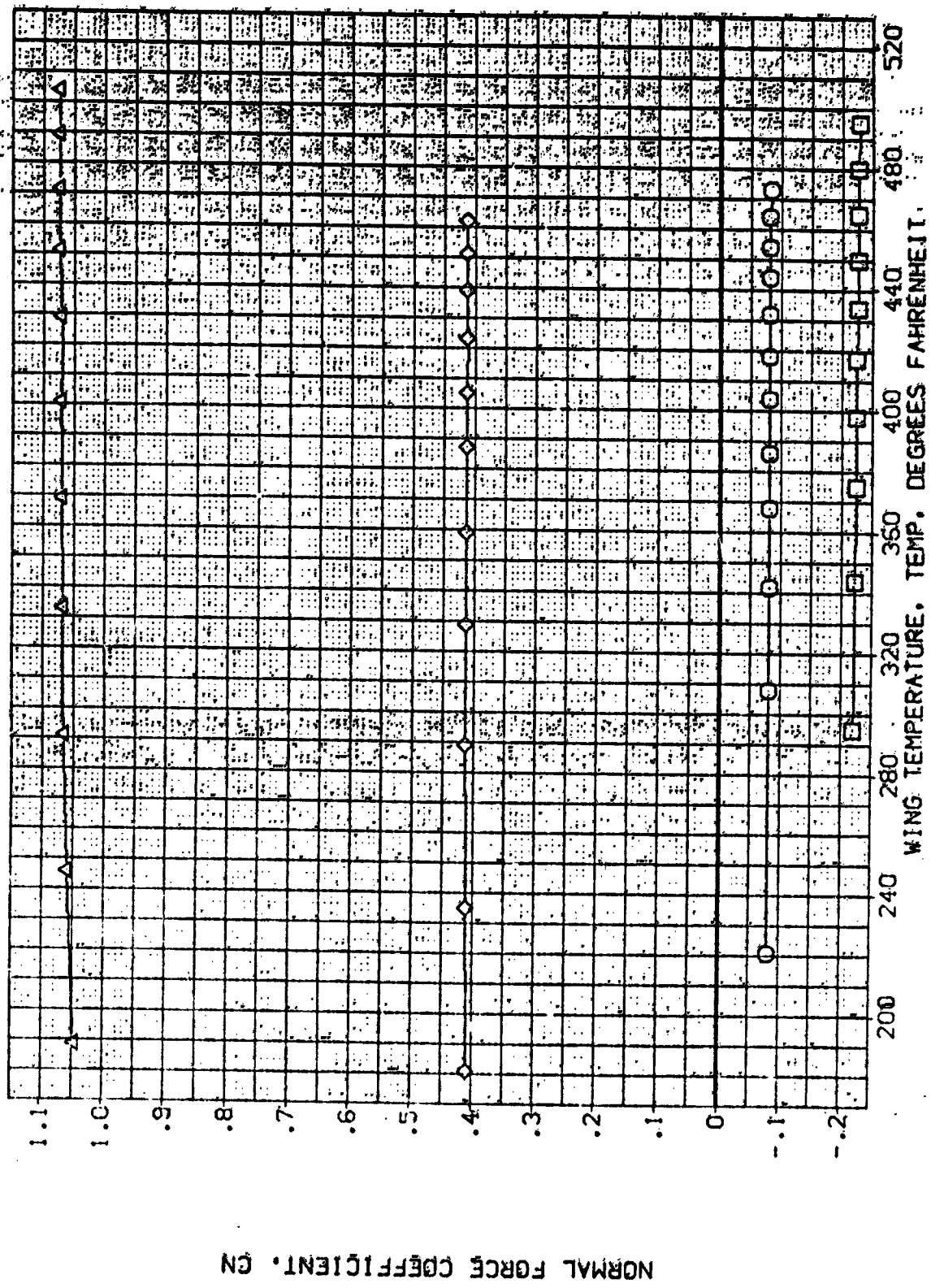
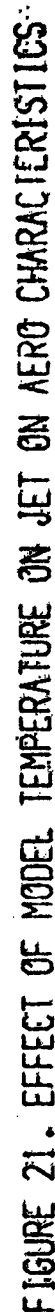


FIGURE 21. EFFECT OF MODEL TEMPERATURE ON JET ON AERO CHARACTERISTICS

(A)MACH = 10.33

PITCHING MOMENT COEFFICIENT, CLM



(A)MACH = 10.33

88 PAGE

DATA SET SYMBOL CONFIGURATION DESCRIPTION

01N49 WING TEMPERATURE LARC CFHT 118 (MA-22)
 01N49 WING TEMPERATURE LARC CFHT 118 (MA-22)
 01N49 WING TEMPERATURE LARC CFHT 118 (MA-22)
 01N49 WING TEMPERATURE LARC CFHT 118 (MA-22)

ELEVON 7/0A-1
 .000 95.000
 .000 95.000
 .000 95.000
 .000 95.000

BDFLAP ALPHA
 .000 .000
 -10.000 -10.000
 .000 20.000
 .000 35.000

REFERENCE INFORMATION
 SREF 2690.0000 SO.FT.
 LREF 474.8000 INCHES
 BREF 936.8800 INCHES
 XREF 1036.7000 IN. X0
 YREF .0000 IN. Y0
 ZREF 375.0000 IN. Z0
 SCALE .0100

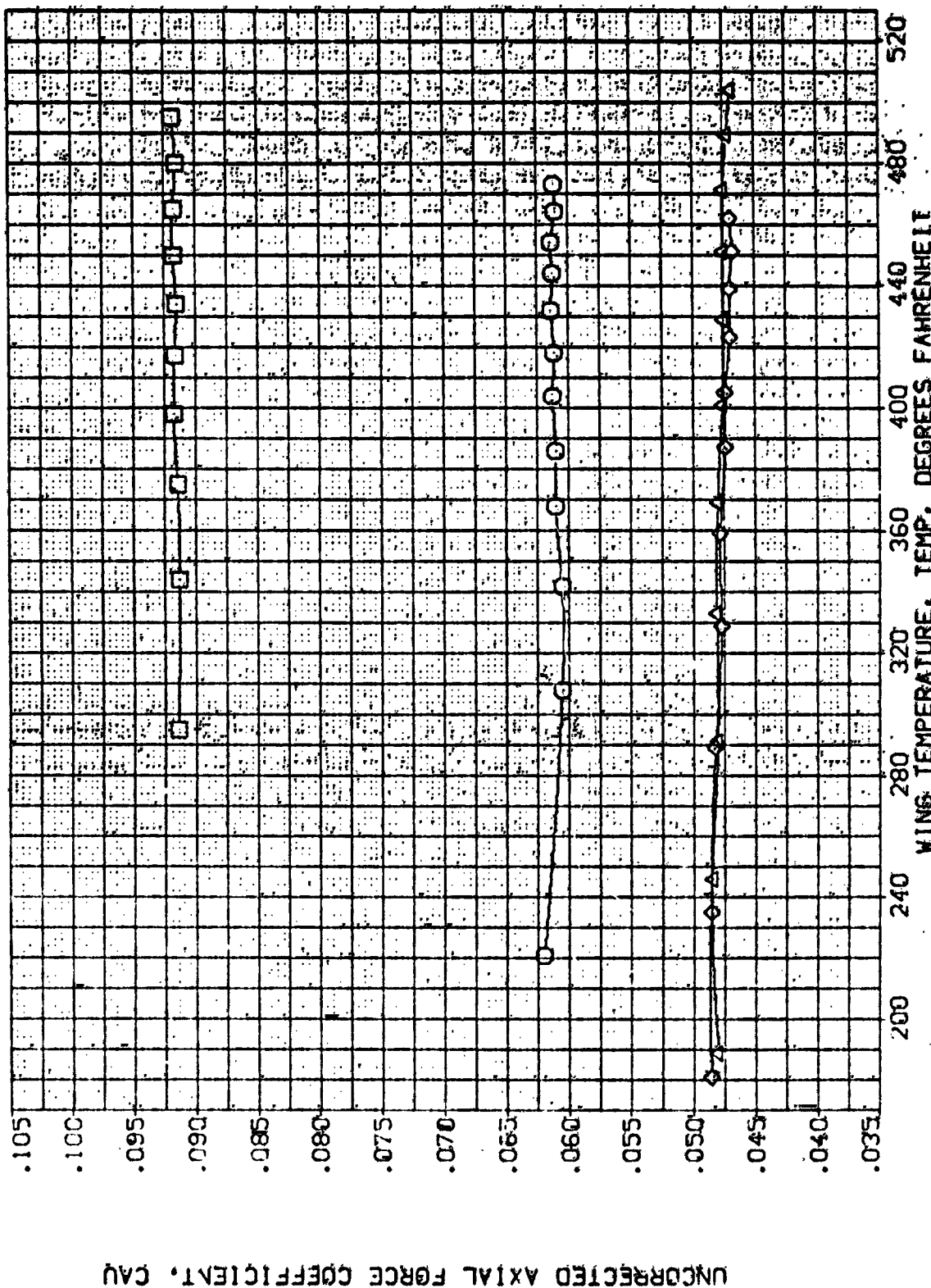


FIGURE 21. EFFECT OF WING TEMPERATURE ON JET ON AERO CHARACTERISTICS

(A) MACH = 10.33

(010VJA)
(6DDVJA)
(8DDVJA)
(7JAGG)

01N49-WING	TEMPERATURE	LARE CFHT	118-(MA-22)
01N49-WING	TEMPERATURE	LARE CFHT	118-(MA-22)
01N49-WING	TEMPERATURE	LARE CFHT	118-(MA-22)
01N49-WING	TEMPERATURE	LARE CFHT	118-(MA-22)

9REF	2500.0000	50 FT.
LREF	474.8000	INCHES
BREF	936.6000	INCHES
XMRP	1006.7000	IN. TO
YMRP	0000	IN. TO
ZMRP	375.0000	IN. TO
SCALE	:0100	

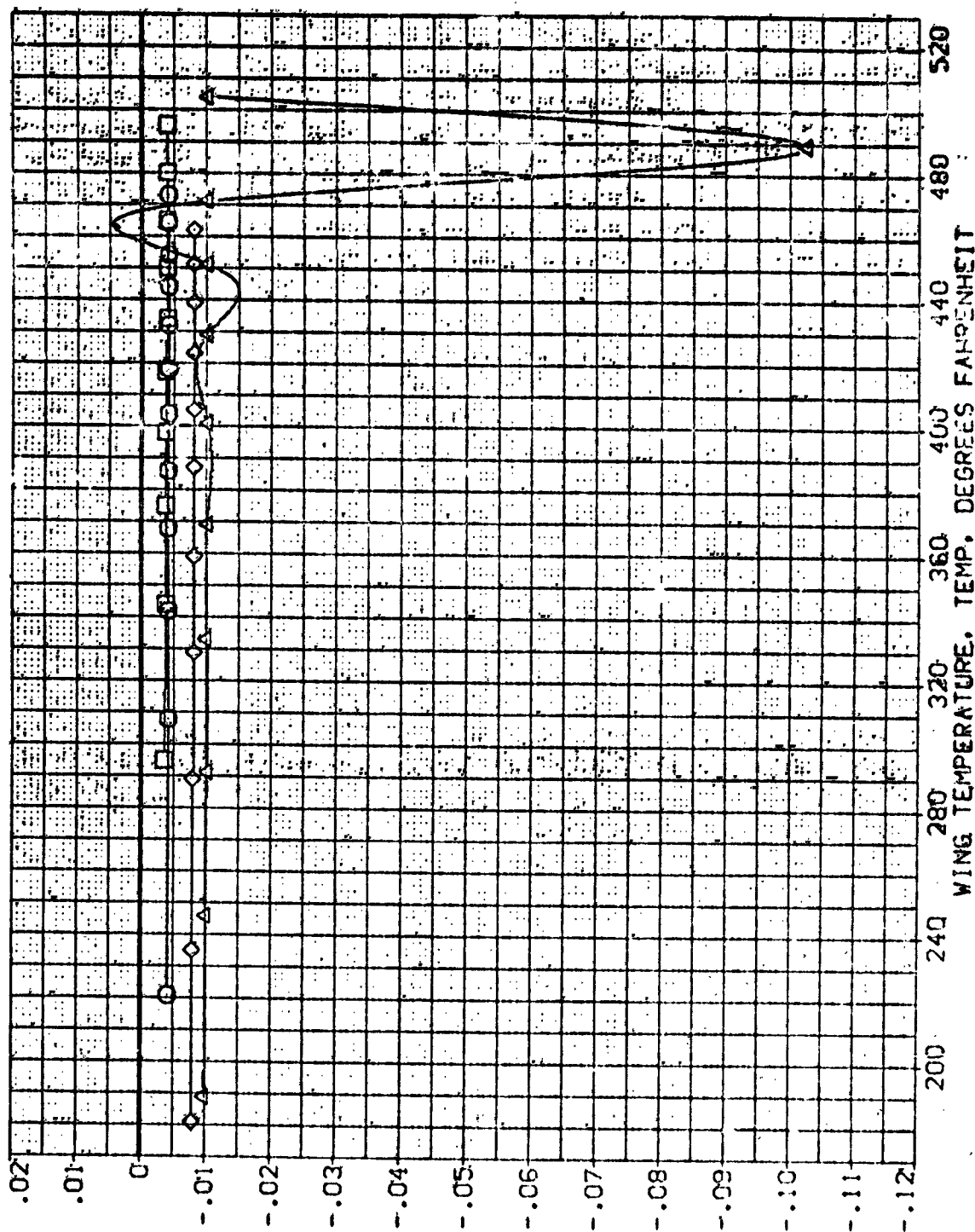


FIGURE 21. EFFECT OF MODEL TEMPERATURE ON JET ON AERO CHARACTERISTICS

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	T/OA-1	BOFLAP	ALPHA	REFERENCE INFORMATION
(WJA007)	01M49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	95.000	.000	.000	SREF 2690.0000 SO.FT.
(WJA008)	01M49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	95.000	.000	-10.000	LREF 474.8000 INCHES
(WJA009)	01M49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	95.000	.000	20.000	BREF 935.5800 INCHES
(WJA010)	01M49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	95.000	.000	35.000	A REF 1076.7000 IN. YD
						V SRP .0000 IN. YD
						Z SRP 375.0000 IN. ZD
						SCALE .0100

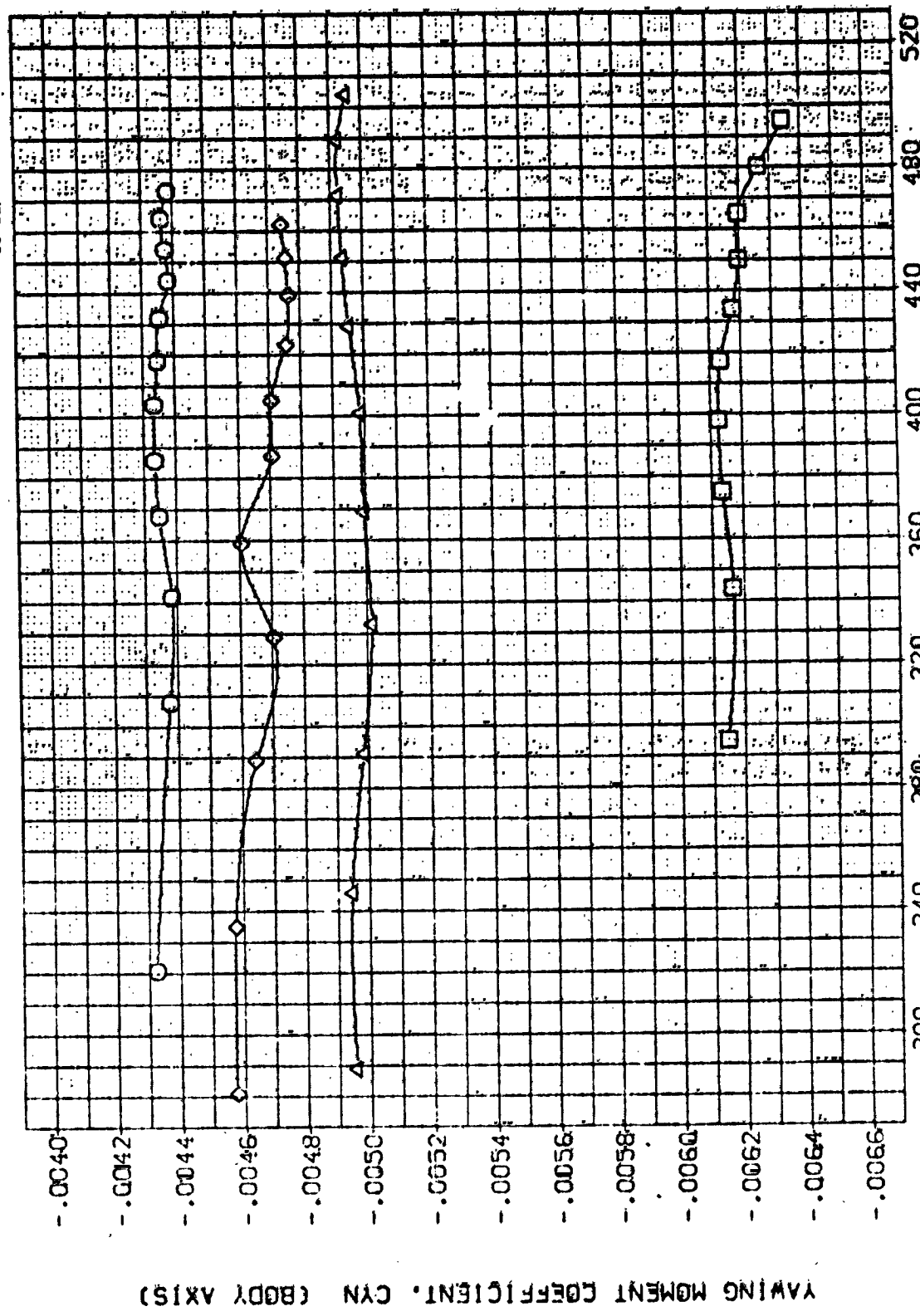


FIGURE 21. EFFECT OF MODEL TEMPERATURE ON JET ON AERO CHARACTERISTICS

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	T/OA-1	BDFLAP	ALPHA	REFERENCE INFORMATION
(WJAG07)	Q1N49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	95.000	.000	.020	SREF 2690.0000 50. FT.
(WJAG08)	Q1N49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	95.000	.000	-10.000	LREF 474.8000 INCHES
(WJAG09)	Q1N49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	95.000	.000	20.000	BREF 936.6800 INCHES
(WJAG10)	Q1N49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	95.000	.000	35.000	XREF 1076.7000 IN. X
						YREF .0000 IN. Y
						ZREF .0000 IN. Z
						SCALE .0100

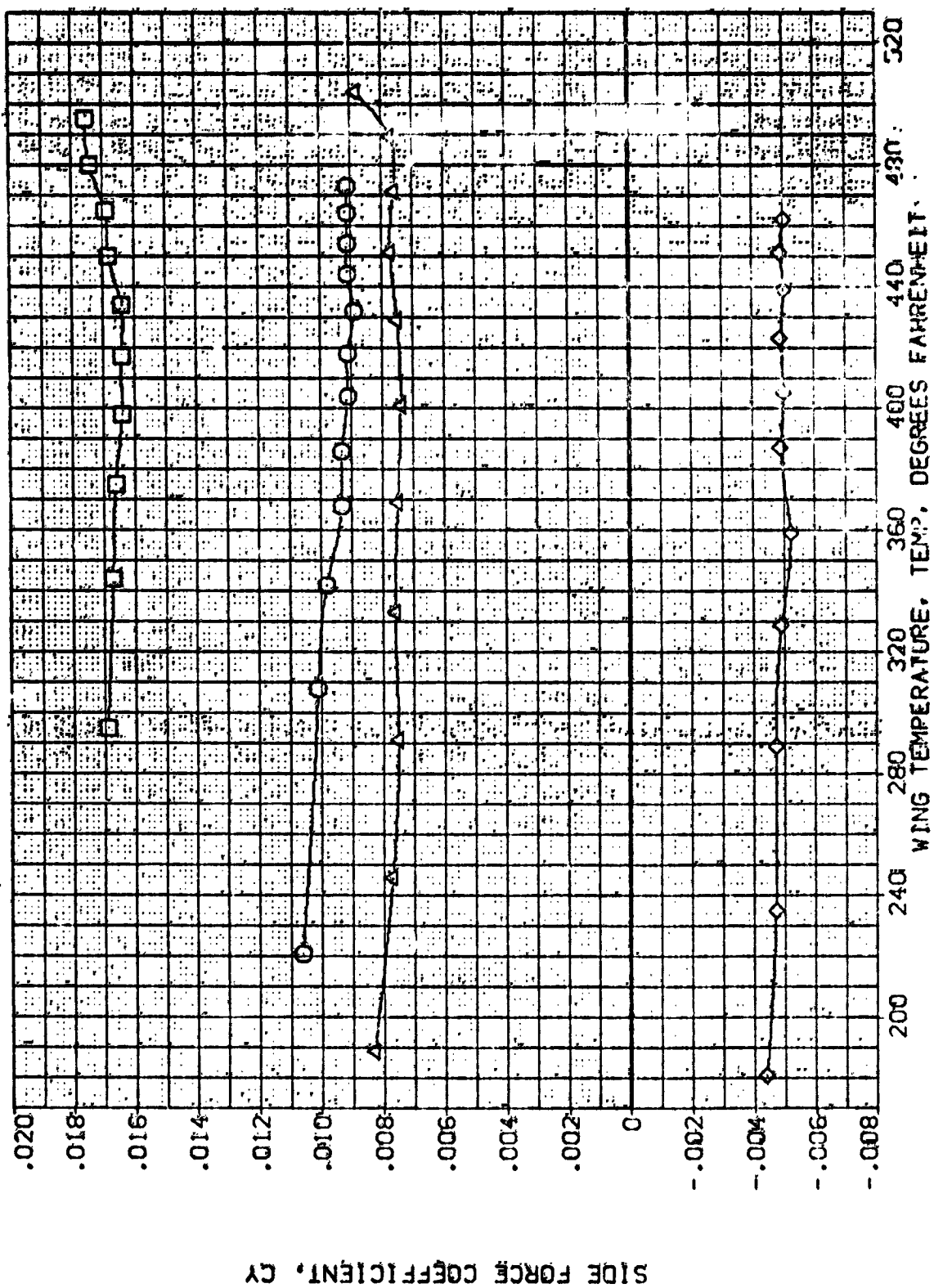


FIGURE 21. EFFECT OF MODEL TEMPERATURE ON JET ON AERO CHARACTERISTICS.
 (A) MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(WLA407) Q1M49 WING TEMPERATURE LARC CFHT 118 (MA-22)
 (WLA408) Q1M49 WING TEMPERATURE LARC CFHT 118 (MA-22)
 (WLA409) Q1M49 WING TEMPERATURE LARC CFHT 118 (MA-22)
 (WLA410) Q1M49 WING TEMPERATURE LARC CFHT 118 (MA-22)

ELEVON .000
 T/DN-1 .000
 BOFLAP .000
 ALPHA .000
 -19.000
 20.000
 35.000

REFERENCE INFORMATION:
 SREF : 2690.0000 50 FT.
 LREF : 474.8000 INCHES
 BREF : 936.6800 INCHES
 XMRP : 1076.7000 IN. X0
 YMRP : 375.0000 IN. Y0
 ZMRP : .0100 IN. Z0
 SCALE :

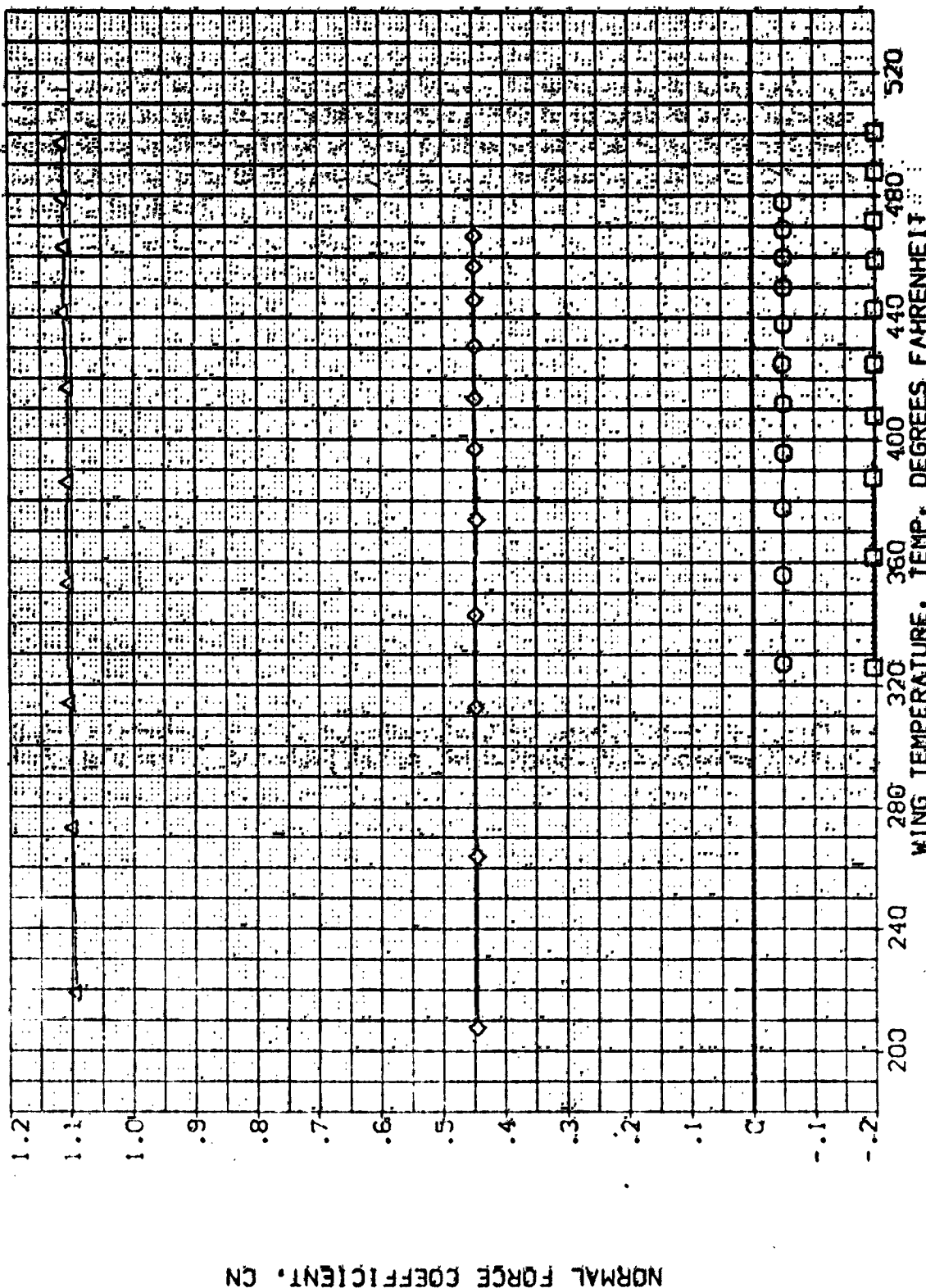


FIGURE 22. EFFECT OF MODEL TEMPERATURE ON JET OFF AERO CHARACTERISTICS

(A) MACH = 10.33

PITCHING MOMENT COEFFICIENT, CLM

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/BA-4	BOELAP	ALPHA	REFERENCE INFORMATION
(WJA407)	GIN49 WING TEMPERATURE LARC CFM 118 (MA-22)	.000	.000	.000	.000	SREF 26.90.0000 50.00
(WJA408)	GIN49 WING TEMPERATURE LARC CFM 118 (MA-22)	.000	.000	.000	.000	LREF 424.8000 INCHES
(WJA409)	GIN49 WING TEMPERATURE LARC CFM 118 (MA-22)	.000	.000	.000	.000	BREF 936.6800 INCHES
(WJA410)	GIN49 WING TEMPERATURE LARC CFM 118 (MA-22)	.000	.000	.000	.000	VMRP 1076.7000 IN. 10
						ZMRP 375.0000 IN. 20
						SCALE .0100

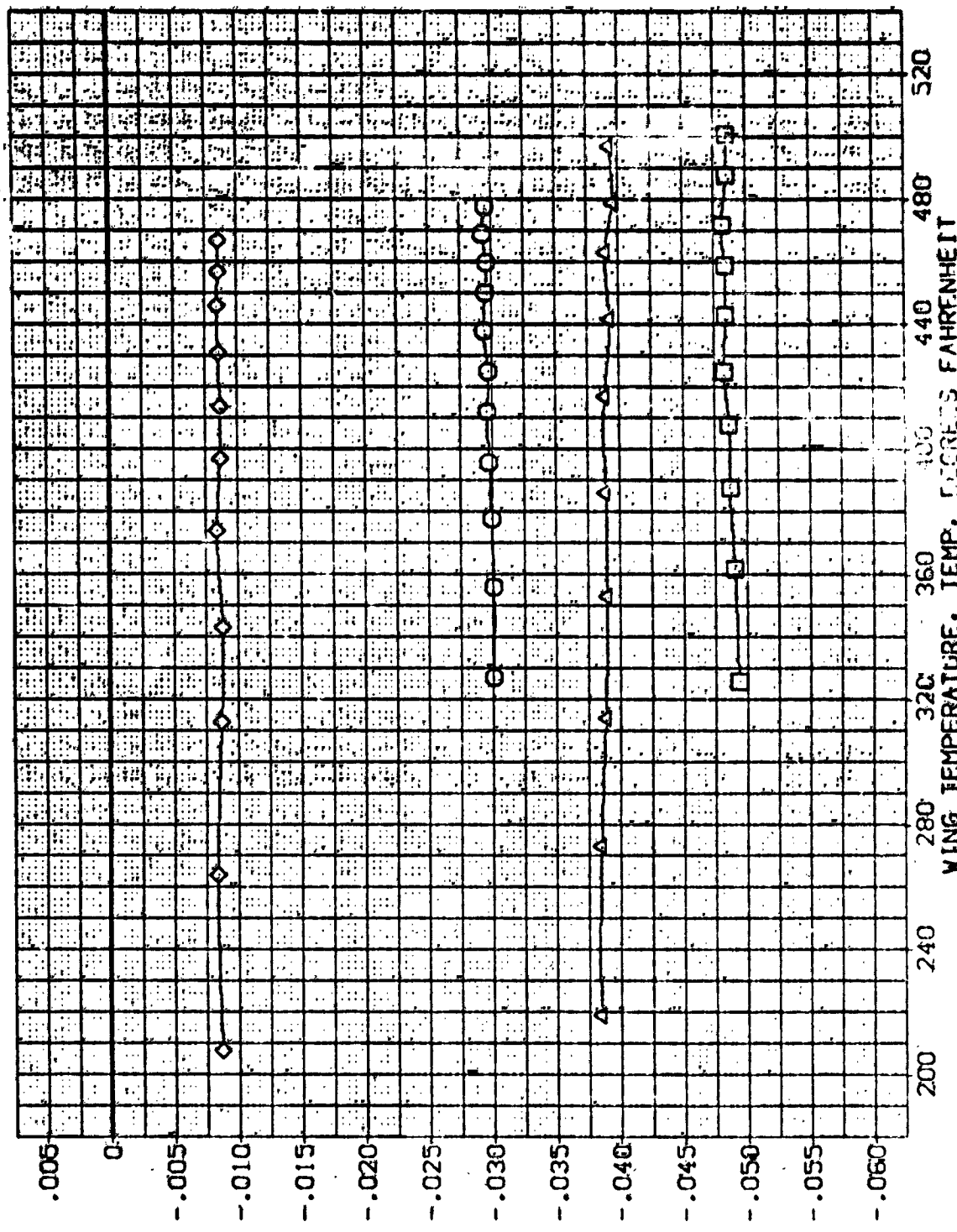


FIGURE 22. EFFECT OF MODEL TEMPERATURE ON JET OFF AERO CHARACTERISTICS

(M)MACH = 10.33

DATA SET SYSTEM	CONFIGURATION DESCRIPTION	ELEVON	1/8A-1	BOFLAP	ALPHA	REFERENCE INFORMATION
(214427)	CIN49 WING TEMPERATURE L19C	.000	.000	.000	.000	SREF 2690.0000 SD.FT.
(214439)	CIN49 WING TEMPERATURE L19C	.000	.000	.000	.000	LREF 474.8000 INCHES
(214459)	CIN49 WING TEMPERATURE L19C	.000	.000	.000	.000	BREF 936.5980 INCHES
(214469)	CIN49 WING TEMPERATURE L19C	.000	.000	.000	.000	YREF 1076.7200 IN. YB
(214470)	CIN49 WING TEMPERATURE L19C	.000	.000	.000	.000	ZREF 375.0000 IN. ZB
						SCALE .0100

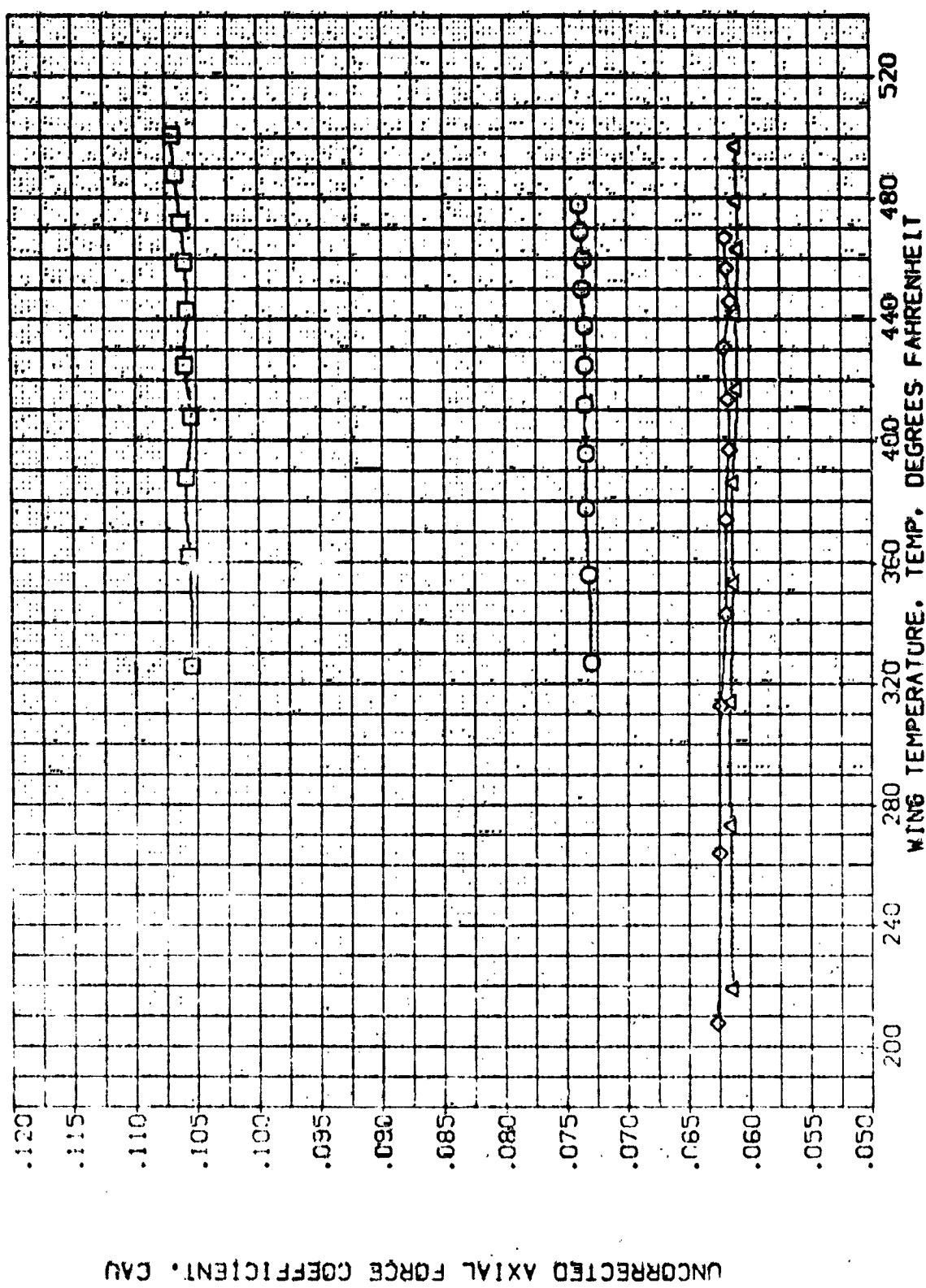


FIGURE 22. EFFECT OF MODEL TEMPERATURE ON JET OFF AERO CHARACTERISTICS

(A)MACH = 10.33

A graph showing the relationship between Delta T (Y-axis) and Temperature in degrees Fahrenheit (X-axis). The Y-axis ranges from -0.0020 to 0.0008 with major grid lines every 0.0002 and minor grid lines every 0.0001. The X-axis ranges from 200 to 520 with major grid lines every 40 units and minor grid lines every 20 units. Three data series are plotted:

- Squares (□):** This series starts at approximately (280, 0.0005), rises to a peak of about 0.0007 at 320°F, and then gradually decreases to approximately 0.0006 at 480°F.
- Circles (○):** This series is nearly horizontal, starting at approximately (320, 0.0001) and ending at approximately (480, 0.0001).
- Diamonds (◇):** This series starts at approximately (200, -0.0010), rises to a peak of about -0.0009 at 320°F, and then gradually decreases to approximately -0.0010 at 480°F.

AMACH = 10.33

DATA SET 5-302
 (WJ4021)
 (WJ4028)
 (WJ4031)
 (WJ4032)

CONFIGURATION DESCRIPTION
 C1N49 WING TEMPERATURE LARC CFMT 118 (MA-22)
 C1N49 WING TEMPERATURE LARC CFMT 118 (MA-22)
 C1N49 WING TEMPERATURE LARC CFMT 118 (MA-22)
 C1N49 WING TEMPERATURE LARC CFMT 118 (MA-22)

ELEVON T/OA-1 EOLAP ALPHA REFERENCE INFORMATION
 .000 .000 .000 STIFF 2650.0000 50. FT.
 .000 .000 .000 LARP 474.2000 INCHES
 .000 .000 .000 BETA 935.6000 INCHES
 .000 .000 .000 AMP 1075.7000 IN. 40
 .000 .000 .000 THRP 375.0000 IN. 20
 .000 .000 .000 SCALE .0300

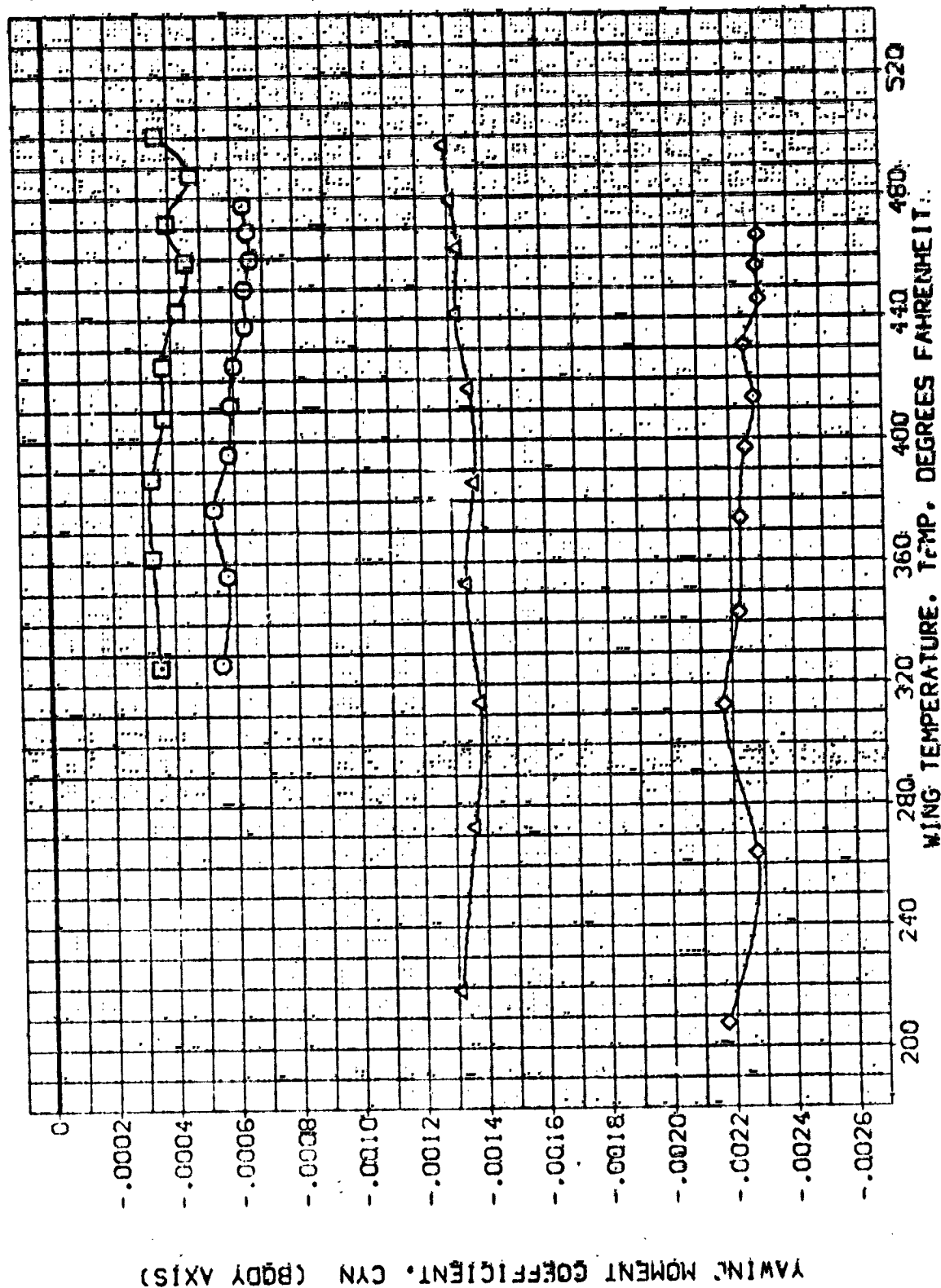


FIGURE 22. EFFECT OF MODEL TEMPERATURE ON JET OFF AERO CHARACTERISTICS

(A)MACH = 10.33

DATA: SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/OA-1	BOFLAP	ALPHA	REFERENCE INFORMATION
(WJ407)	Q1N49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	.000	.000	.000	SEEF 2690.0000 IN. FT.
(WJA408)	Q1N49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	.000	.000	-10.000	LEEF 474.8000 INCHES
(WJA409)	Q1N49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	.000	.000	20.000	BEF 936.6000 INCHES
(WJA410)	Q1N49 WING TEMPERATURE LARC CFHT 118 (MA-22)	.000	.000	.000	35.000	WREF 1076.7000 IN. IN
						WREF 375.0000 IN. VO
						SCALE .0100

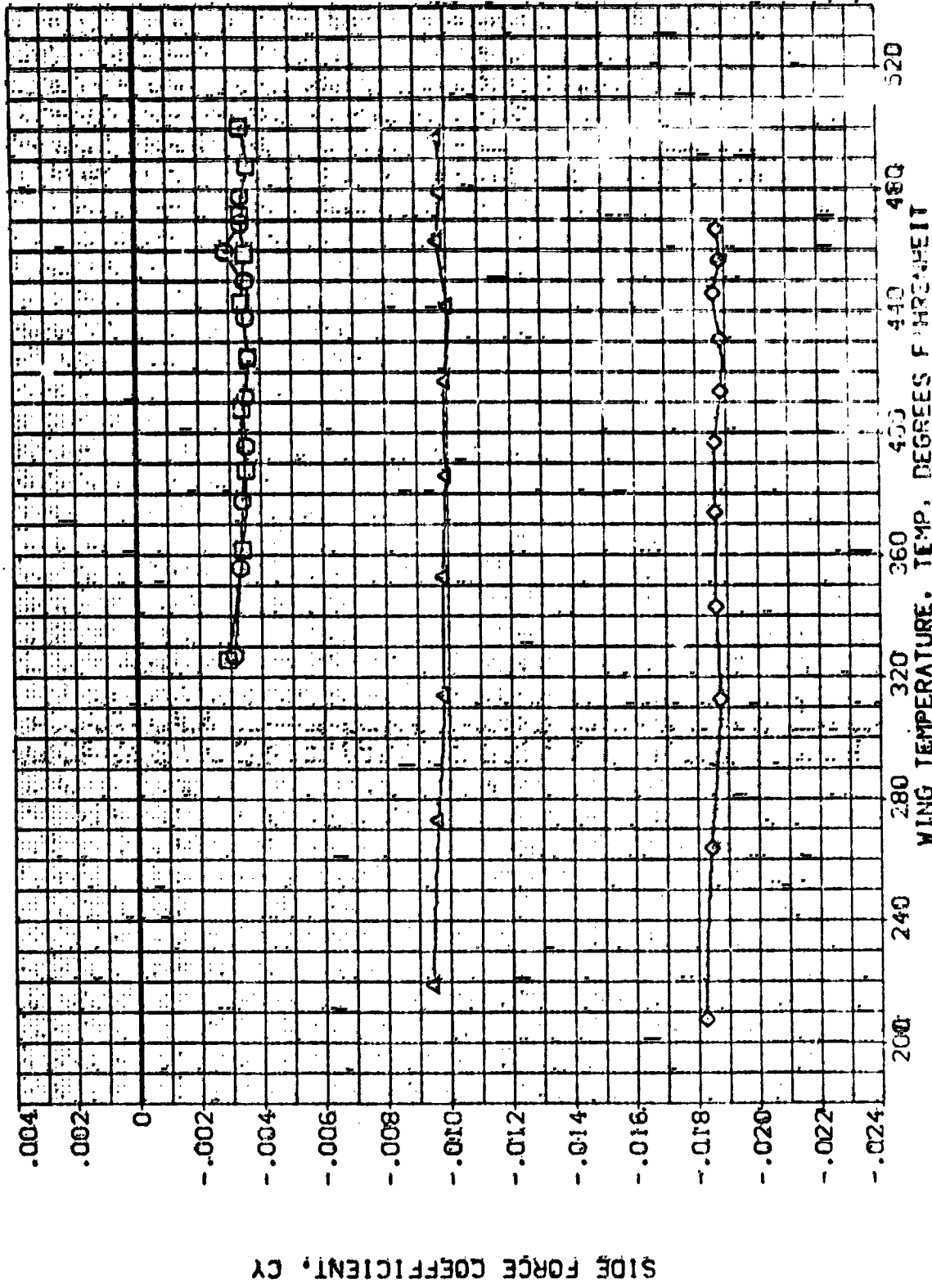


FIGURE 22. EFFECT OF MODEL TEMPERATURE ON JET OFF AERO CHARACTERISTICS

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
GIN49	WING TEMPERATURE	LARC CFMT 118 (MA-22)
GIN49	WING TEMPERATURE	LARC CFMT 118 (MA-22)
GIN49	WING TEMPERATURE	LARC CFMT 118 (MA-22)
GIN49	WING TEMPERATURE	LARC CFMT 118 (MA-22)
GIN49	WING TEMPERATURE	LARC CFMT 118 (MA-22)

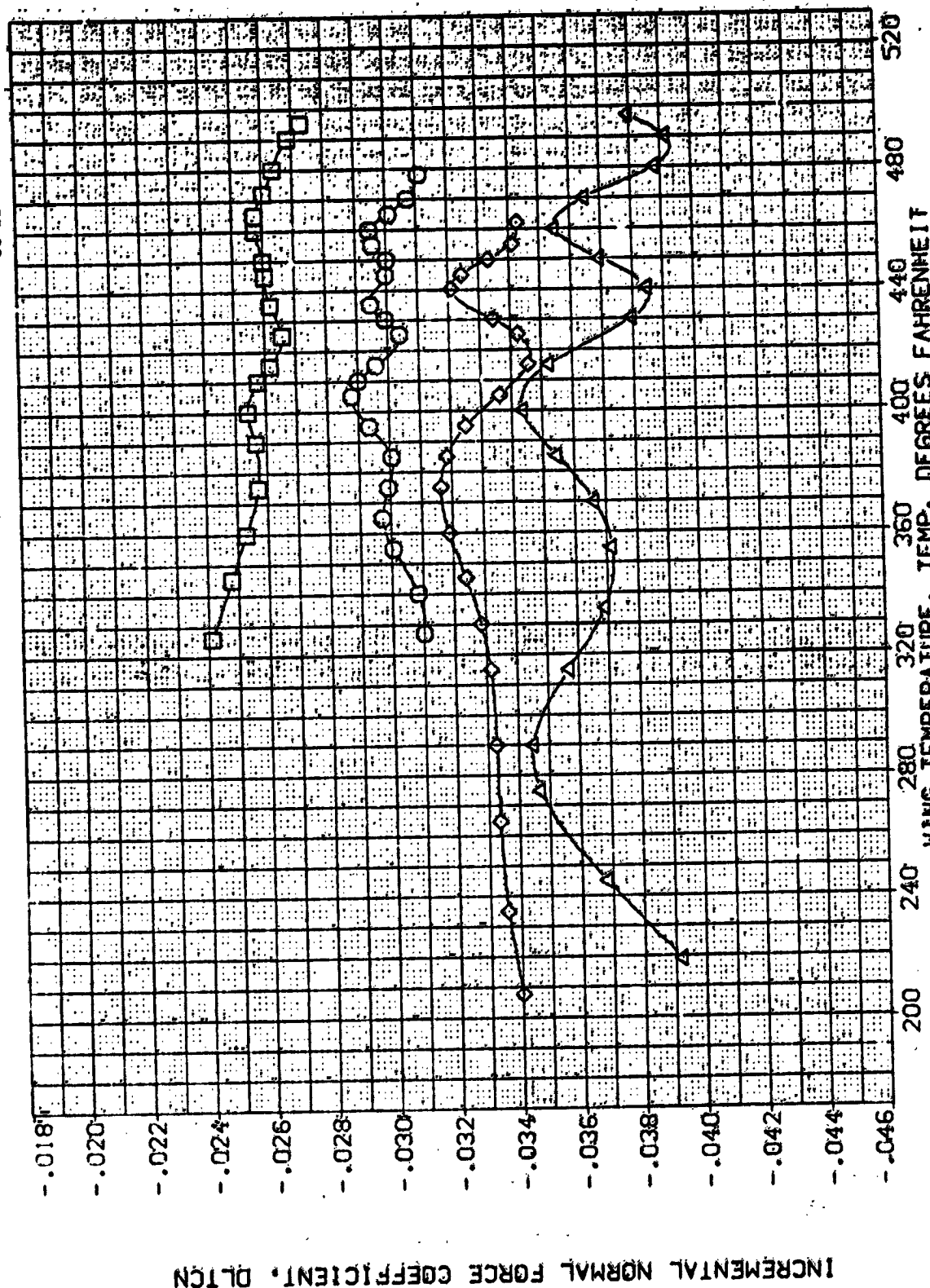


FIGURE 23. EFFECT OF MODEL TEMPERATURE ON JET ON-JET OFF AERO CHARACTERISTICS.

CAMACH = 10.33

(CJ007)
 (CJ008)
 (CJ009)
 (CJ010)

0ING	WING	TEMPERATURE	LARC	CFMT	118	(MA-22)
0ING	WING	TEMPERATURE	LARC	CFMT	118	(MA-22)
0ING	WING	TEMPERATURE	LARC	CFMT	118	(MA-22)
0ING	WING	TEMPERATURE	LARC	CFMT	118	(MA-22)

95.000	.000
95.000	.000
95.000	.000
95.000	.000

669	.000
700	.000
750	.000
800	.000
850	.000
900	.000
950	.000
1000	.000
1050	.000
1100	.000
1150	.000
1200	.000
1250	.000
1300	.000
1350	.000
1400	.000
1450	.000
1500	.000
1550	.000
1600	.000
1650	.000
1700	.000
1750	.000
1800	.000
1850	.000
1900	.000
1950	.000
2000	.000
2050	.000
2100	.000
2150	.000
2200	.000
2250	.000
2300	.000
2350	.000
2400	.000
2450	.000
2500	.000
2550	.000
2600	.000
2650	.000
2700	.000
2750	.000
2800	.000
2850	.000
2900	.000
2950	.000
3000	.000
3050	.000
3100	.000
3150	.000
3200	.000
3250	.000
3300	.000
3350	.000
3400	.000
3450	.000
3500	.000
3550	.000
3600	.000
3650	.000
3700	.000
3750	.000
3800	.000
3850	.000
3900	.000
3950	.000
4000	.000
4050	.000
4100	.000
4150	.000
4200	.000
4250	.000
4300	.000
4350	.000
4400	.000
4450	.000
4500	.000
4550	.000
4600	.000
4650	.000
4700	.000
4750	.000
4800	.000
4850	.000
4900	.000
4950	.000
5000	.000
5050	.000
5100	.000
5150	.000
5200	.000
5250	.000
5300	.000
5350	.000
5400	.000
5450	.000
5500	.000
5550	.000
5600	.000
5650	.000
5700	.000
5750	.000
5800	.000
5850	.000
5900	.000
5950	.000
6000	.000
6050	.000
6100	.000
6150	.000
6200	.000
6250	.000
6300	.000
6350	.000
6400	.000
6450	.000
6500	.000
6550	.000
6600	.000
6650	

1705
LREF
BREF
XMRP
VMRP

INCHES	IN. X0	IN. Y0	IN. Z0
474.8000			
936.6800			
1076.7000			
.0000			
375.0000			
.0100			

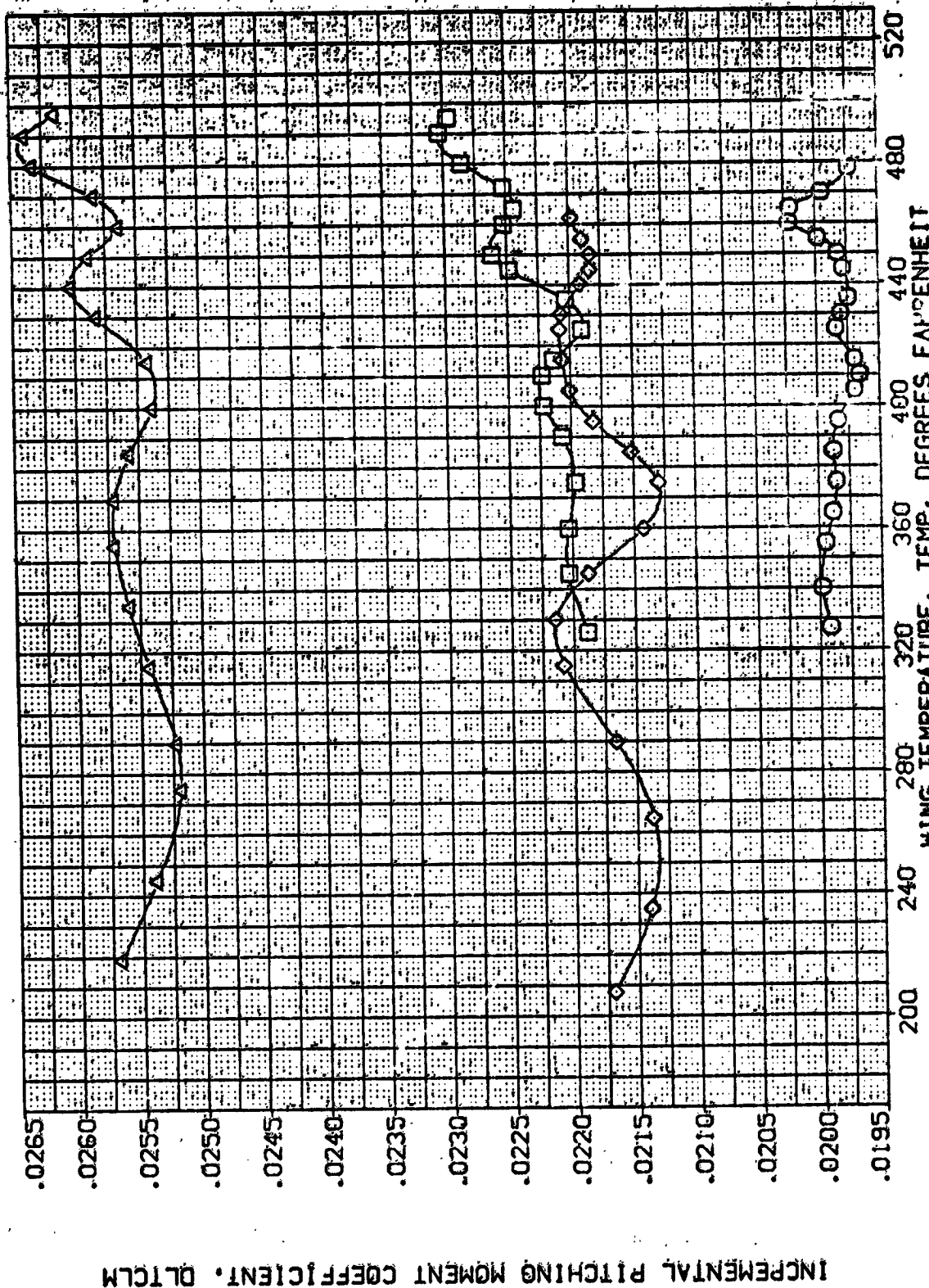


FIGURE 23. EFFECT OF MODEL TEMPERATURE ON JET ON-JET OFF AERO CHARACTERISTICS.

$$(\text{A})\text{MACH} = 10.33$$

PAGE 100.

ELEV84	T/OA-1	BOFLAP	ALPHA	REFERENCE INFORMATION	SD.FT. INCHES	IN. X0 IN. Y0 IN. Z0
.000	95.000	.000	.000	SREF	2690.0000	
.000	95.000	.000	-10.000	LREF	474.8000	
.000	95.000	.000	20.000	BREF	936.6800	
.000	95.000	.000	35.000	XRRP	1876.7000	
.000	95.000	.000		YRRP	0000.0000	
.000	95.000	.000		ZRRP	375.0000	
				SCALE	.0100	

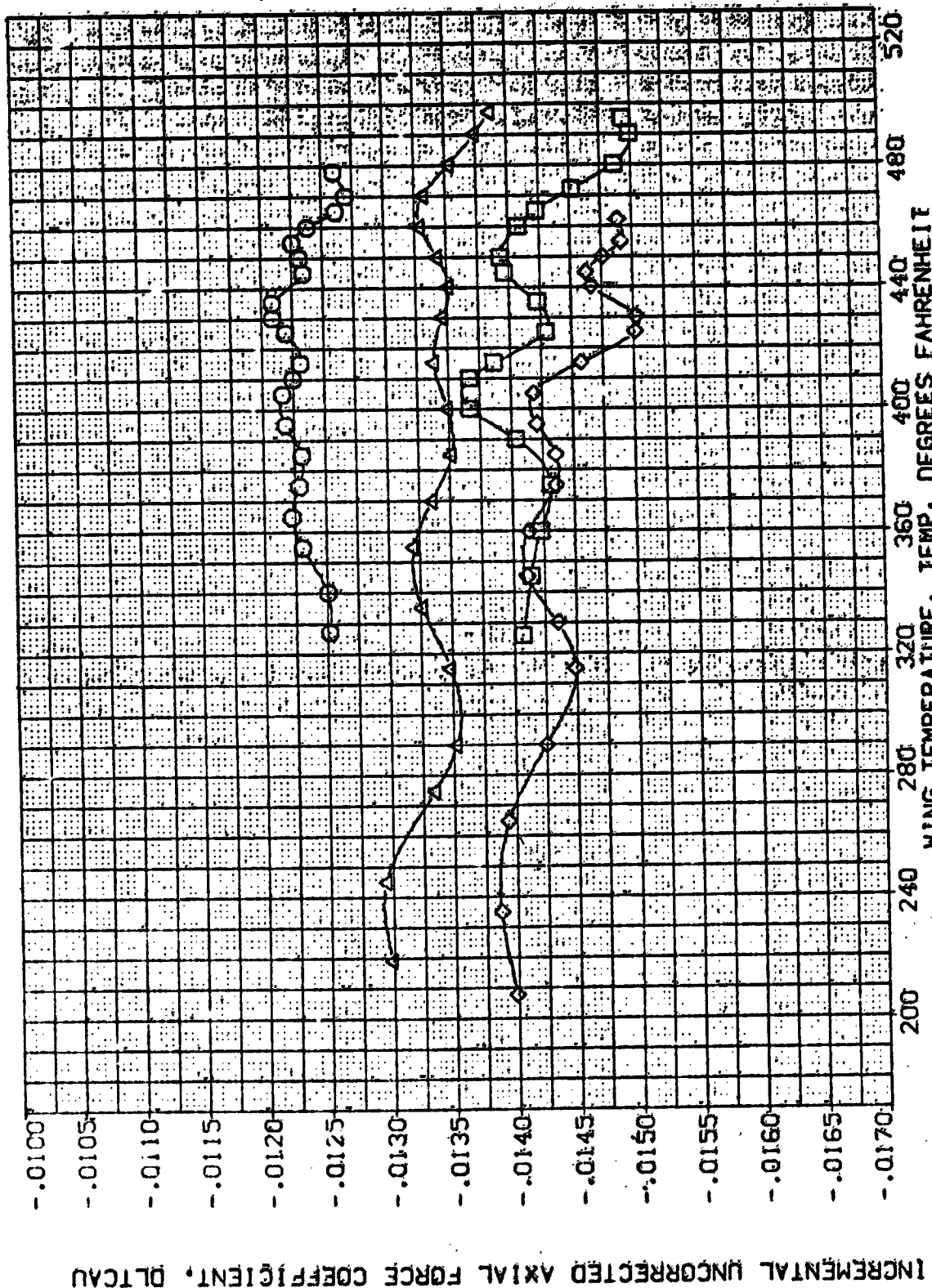


FIGURE 23. EFFECT OF MODEL TEMPERATURE ON JET ON-JET OFF AERO CHARACTERISTICS.

(A)MACH = 10.33

CJA607	GINS	WING	TEMPERATURE	LARC	CFMT	118	(MA-22)	.000	95.000	.000	SREF	ALFA	MMN	MMN	MMN
CJA608	GINS	WING	TEMPERATURE	LARC	CFMT	118	(MA-22)	.000	95.000	-10.000	LREF	474	8000	INCHES	MM IN.
CJA609	GINS	WING	TEMPERATURE	LARC	CFMT	118	(MA-22)	.000	95.000	20.000	BREF	356	6800	IN.	IN.
CJA610	GINS	WING	TEMPERATURE	LARC	CFMT	118	(MA-22)	.000	95.000	35.000	XMRP	1076	7000	IN.	IN.
											ZMRP	375	0000	IN.	IN.
											SCALE		0000		"

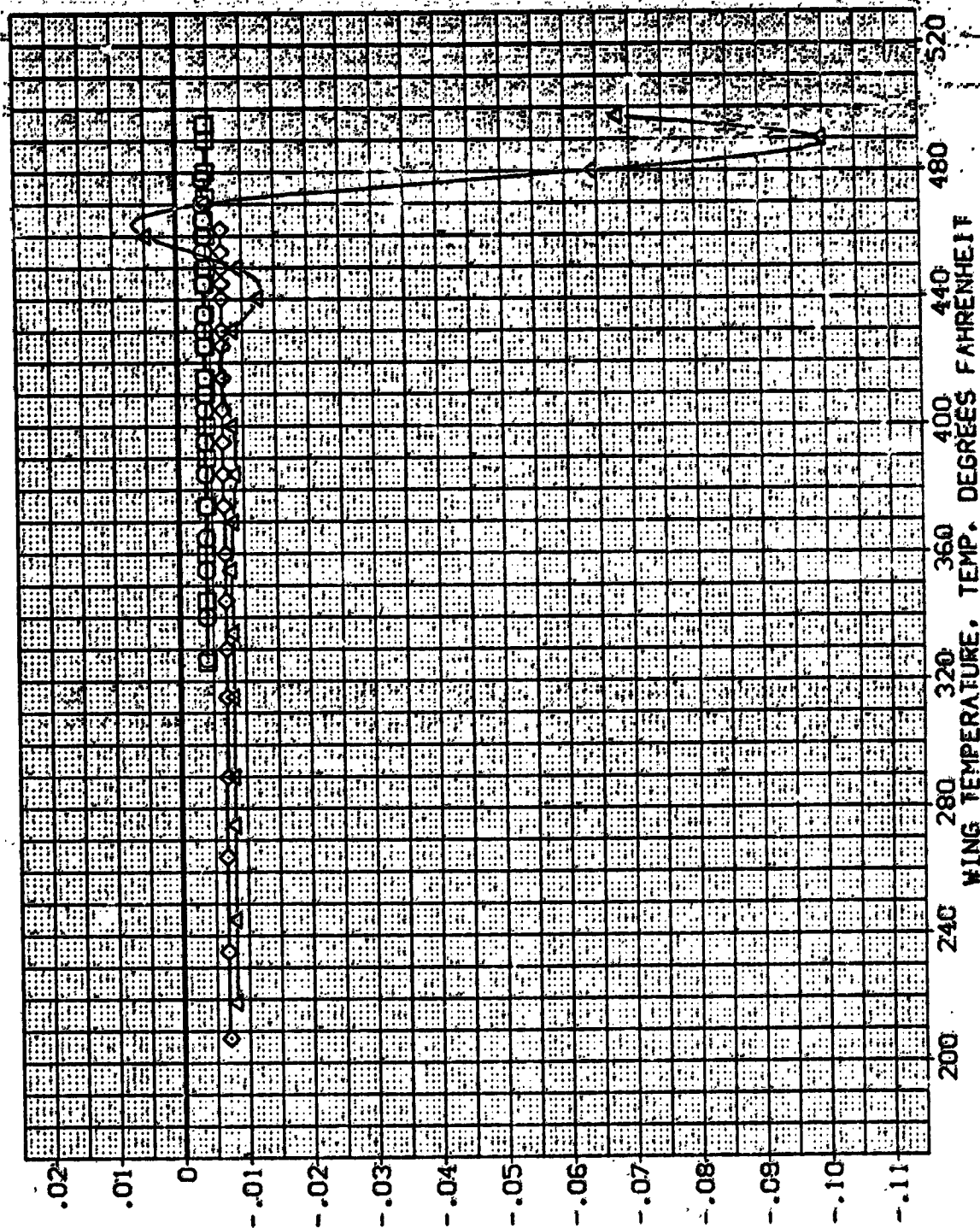


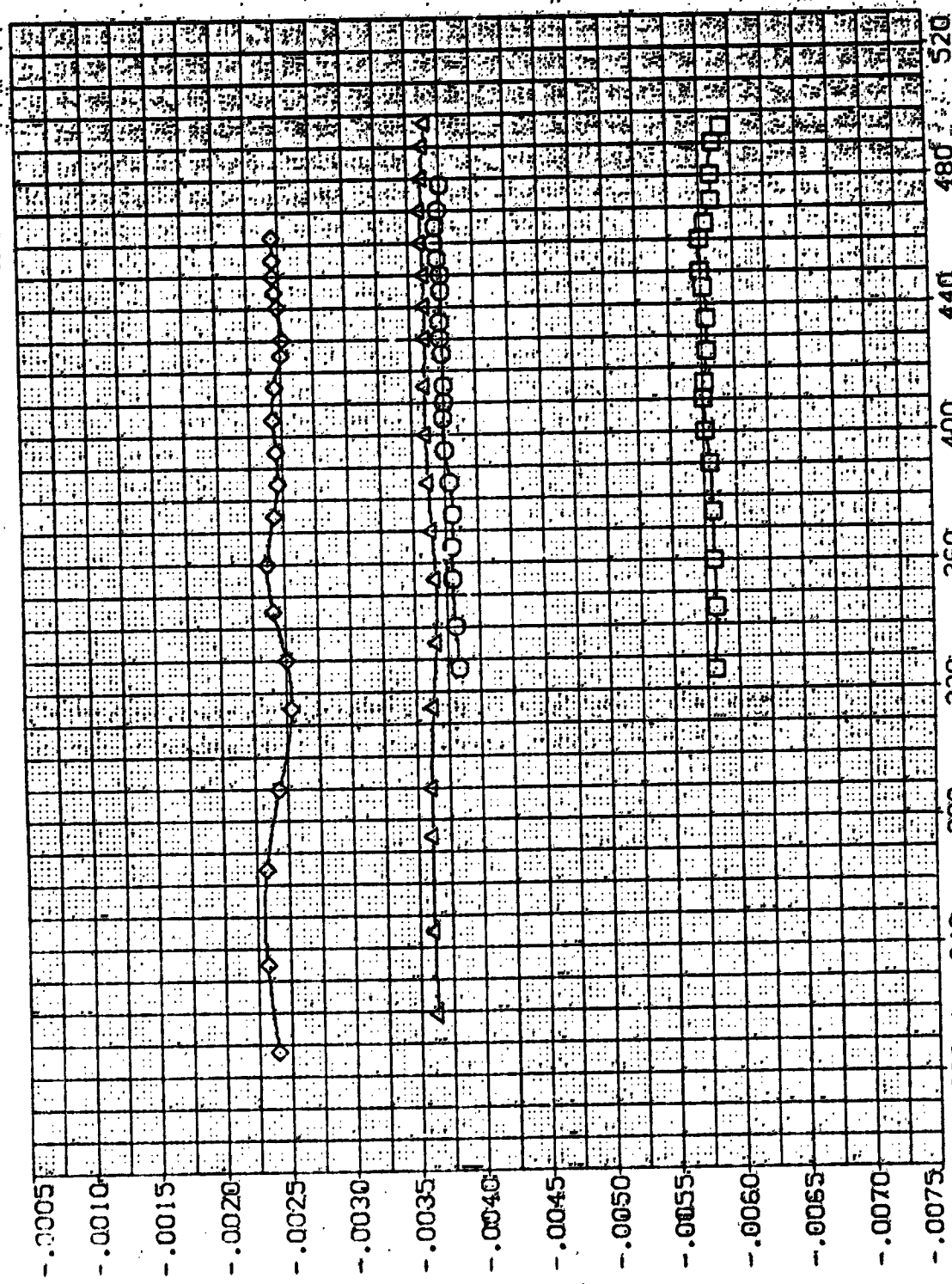
FIGURE 23. EFFECT OF MODEL TEMPERATURE ON JET ON-JET OFF AERO CHARACTERISTICS

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CJA007) Q1N49 WING TEMPERATURE LARC CFHT 118 (MA-22)
 (CJA008) Q1N49 WING TEMPERATURE LARC CFHT 118 (MA-22)
 (CJA009) Q1N49 WING TEMPERATURE LARC CFHT 118 (MA-22)
 (CJA010) Q1N49 WING TEMPERATURE LARC CFHT 118 (MA-22)

ELEVON .000
 T/OA-1 95.000
 BOFLAP .000
 ALPHA .000
 SREF 2690.000
 LREF 474.800
 BREF 916.800
 XHRP 1076.700
 YHRP 373.000
 SCALE .0100

REFERENCE INFORMATION
 50 FT.
 INCHES
 IN.
 IN.
 IN.
 IN.
 IN.



INCREMENTAL YAWING MOMENT COEFFICIENT, DLTcyn

FIGURE 23. EFFECT OF MODEL TEMPERATURE ON JET ON-JET OFF AERO CHARACTERISTICS
 (A) MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	T/QA-1	BOFLAP	ALPHA	REFERENCE INFORMATION
(CJA007)	01M49 WING TEMPERATURE LARC CPHT 118 (MA-22)	.000	95.090	.000	.000	SREF 2630.0000 IN 50 FT
(CJA008)	01M49 WING TEMPERATURE LARC CPHT 118 (MA-22)	.000	95.080	.000	-10.000	LREF 474.8000 IN INCHES
(CJA009)	01M49 WING TEMPERATURE LARC CPHT 118 (MA-22)	.008	95.000	.000	20.000	BREF 936.6800 IN IN
(CJA010)	01M49 WING TEMPERATURE LARC CPHT 118 (MA-22)	.000	95.000	.000	35.000	XREF 1076.7000 IN IN
						YREF 275.0000 IN IN
						ZREF .0100 SCALE

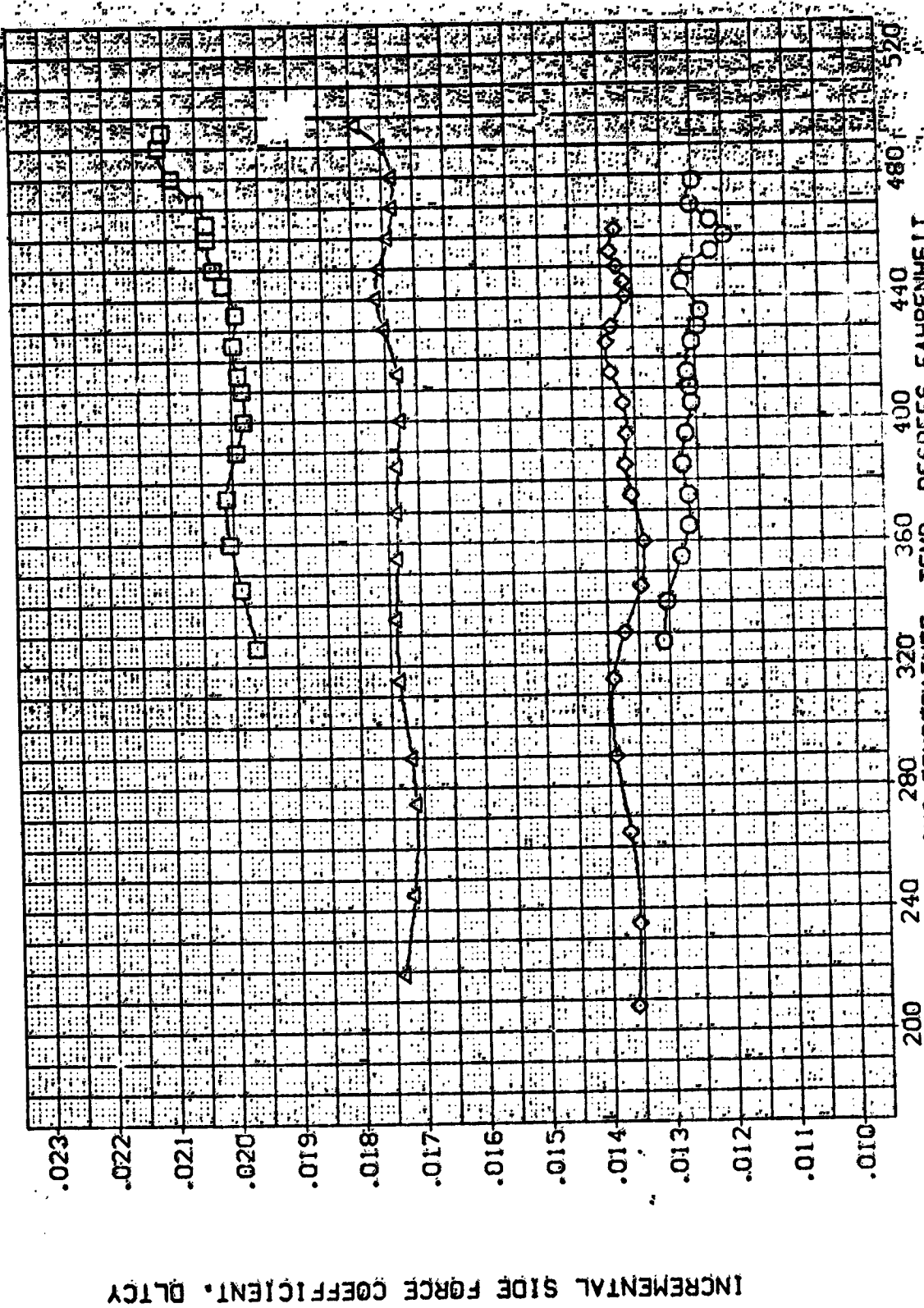


FIGURE 23. EFFECT OF MODEL TEMPERATURE ON JET ON-JET OFF AERO CHARACTERISTICS
 (CA)MACH = 10.33
 PAGE 104

DATA SET SYMBOL
(LJAD03)
(LJAD06)

CONFIGURATION DESCRIPTION
Q1M49 LARC CHT 118 (MA-22)
Q1M49 LARC CHT 118 (MA-22)

ELEVON T/A-1 BORLAP BETA
.000 .000 .000
.000 .000 .000

REFERENCE INFORMATION
SREF 2650.0000 IN. 50 FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. X0
YMRP 375.0000 IN. Y0
ZMRP .0100 IN. Z0
SCALE

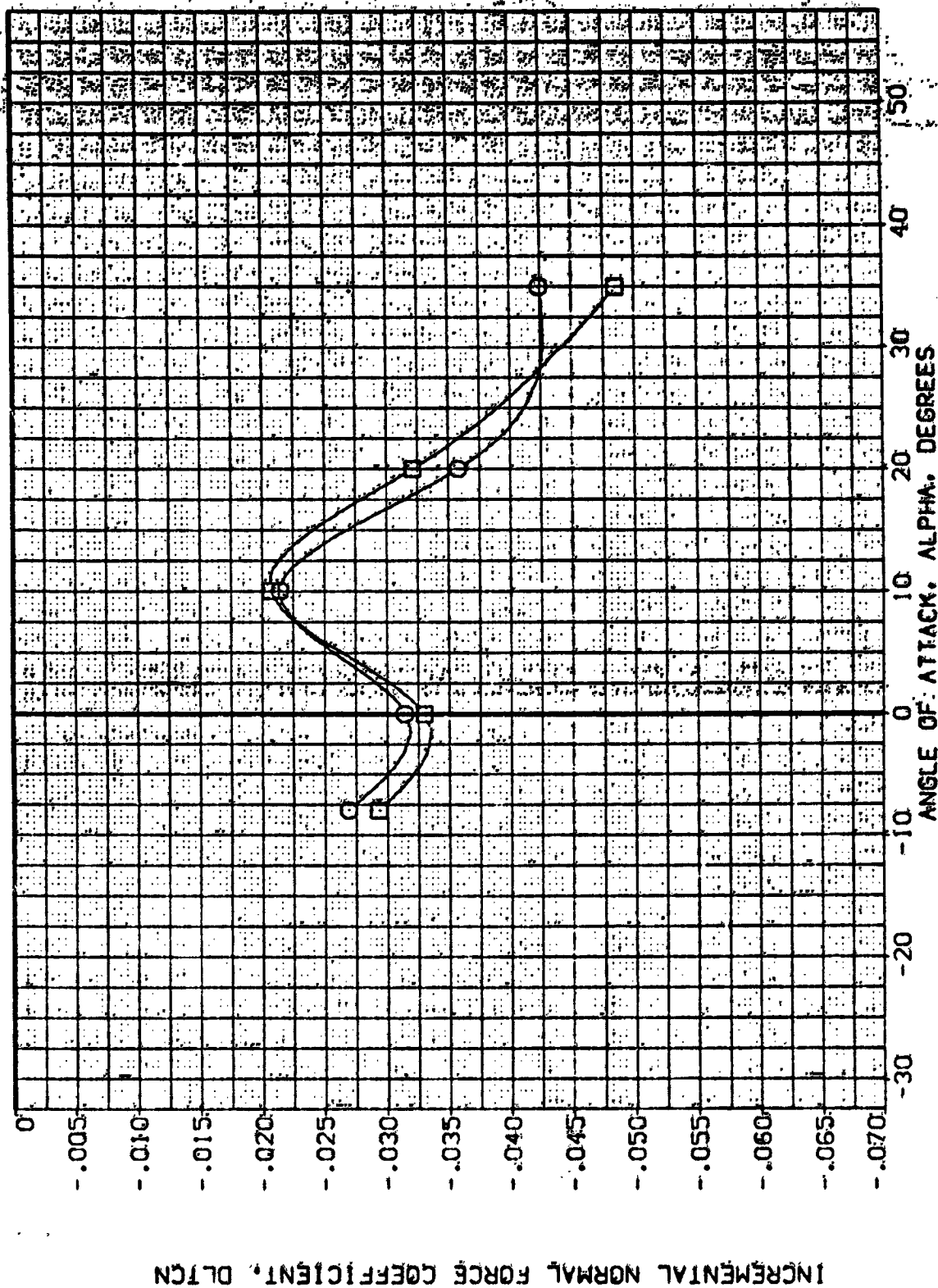



FIGURE 24. COMPARISON OF ON/OFF VS ON-OFF RUNS

(A)MACH = 10.33

DATA SET SYMBOL: (CJA003) (CJA008) 

CONFIGURATION DESCRIPTION:
 01N3 LARC CFHT 118 (MA-22)
 01N4 LARC CFHT 118 (MA-22)

ELEVON: .000
 7/0A-1: .000
 BOFLAP: .080
 BETA: .000

REFERENCE INFORMATION:
 SREF 2690.0000 50. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. 20
 YMRP .0600 IN. 20
 ZMRP 373.0000 IN. 20
 SCALE .0100

INCREMENTAL PITCHING MOMENT COEFFICIENT, DLICLM

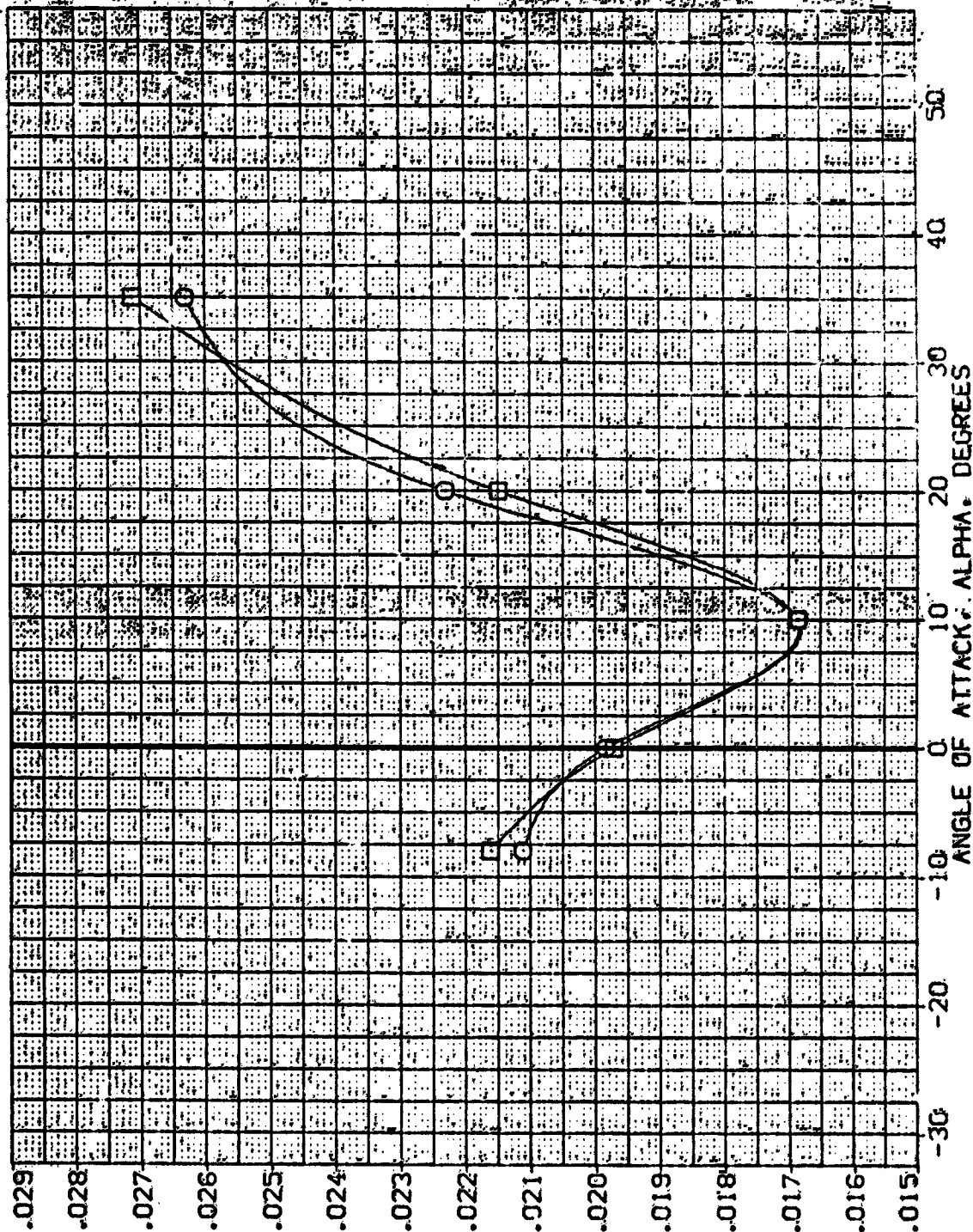


FIGURE 24. COMPARISON OF ON/OFF VS ON-OFF RUNS

(A)MACH = 10.33

DATA SET S-1836
 (CJAC02) ☐ CIN48 LARC CFHT 118 (MA-22)
 (CJAC06) ☐ CIN49 LARC CFHT 118 (MA-22)

ELEVON T/OA-1 BOFLAP BETA
 .000 .000 .000
 .000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 50.00
 LREF 474.8000 INCHES
 EREF 936.8500 INCHES
 YREF 1676.7000 INCHES
 ZREF 375.0000 INCHES
 SCALE .0100

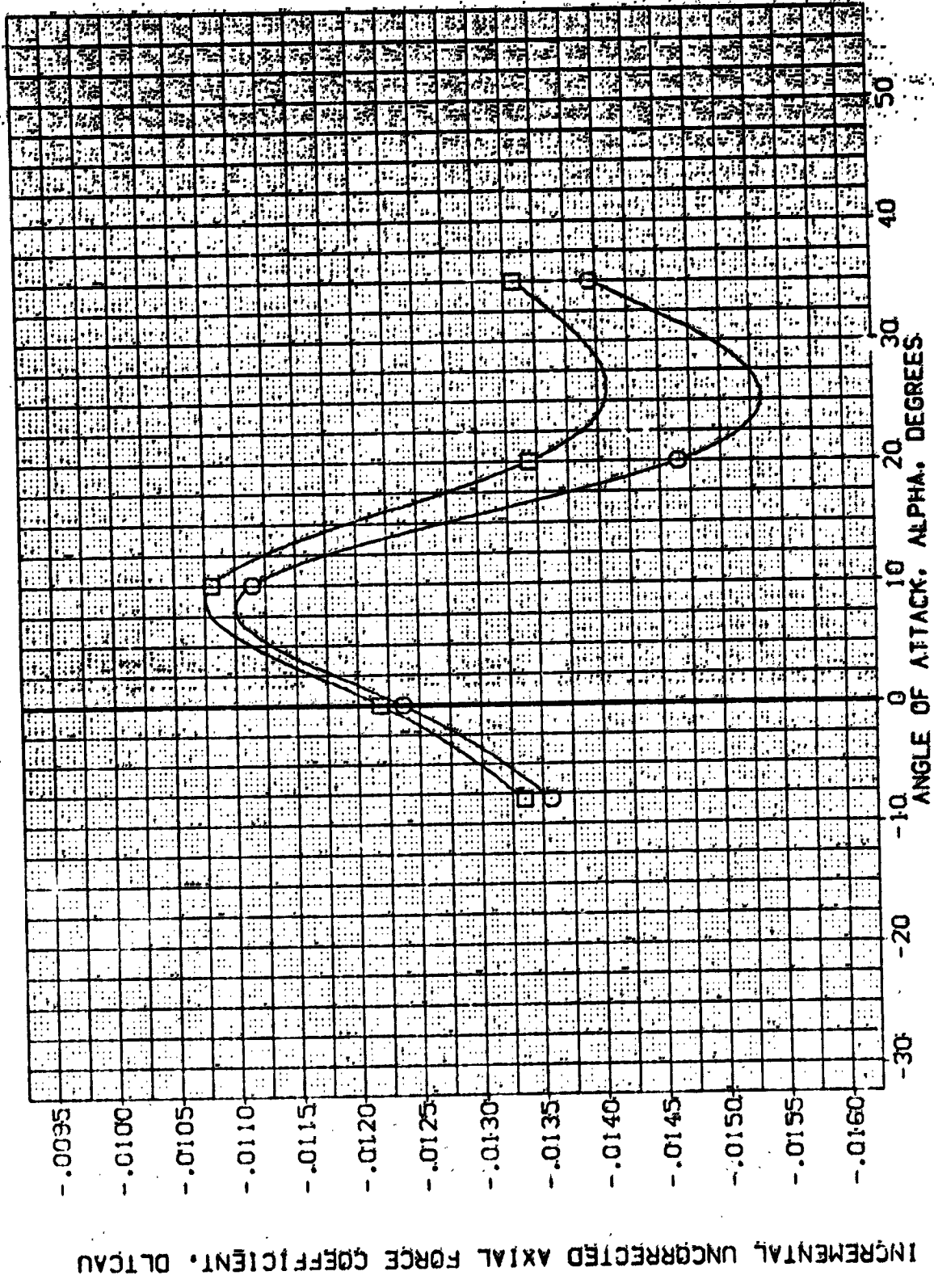


FIGURE 24. COMPARISON OF ON/OFF VS ON-OFF RUNS

(A) MACH = 10.33

DATA SET SYMBOL: (CJAD03) (CJAD06)
 CONFIGURATION DESCRIPTION: QIN49 LARC CENT 118 (MA-22)
 QIN49 LARC CENT 118 (MA-22)

ELEVON: .000, .000, .000
 T/DA-1: .95, .95, .95
 BDFLAP: .000, .000, .000
 BETA: .000, .000, .000
 REFERENCE INFORMATION:
 SREF: 2690, 0000, 250, FT.
 LREF: 474, 8000, INCHES
 BREF: 936, 6800, INCHES
 XMRP: 1076, 7000, IN, X0
 YMRP: 0000, 0000, IN, Y0
 ZMRP: 275, 0000, IN, Z0
 SCALE: .0100

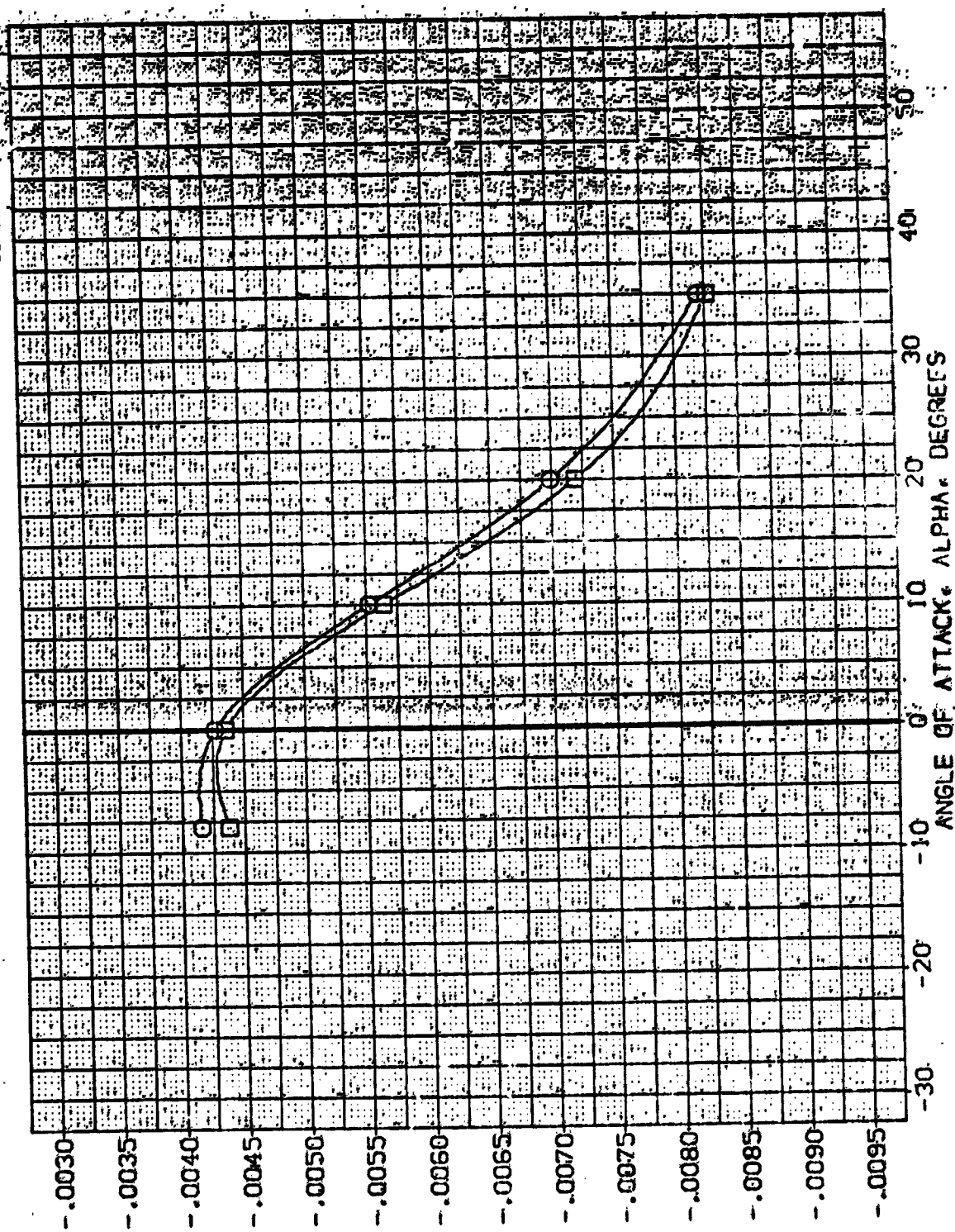


FIGURE 24. COMPARISON OF ON/OFF VS. ON-OFF RUNS

(A) MACH = 10.33

DATA SET SYMBOL: 01N43
 CONFIGURATION DESCRIPTION: LARC CFHT 118 (MA-22)
 01N45 LARC CFHT 118 (MA-22)

ELEVATION: .000
 T/OA-1: 95.000
 BDFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 IN. FT.
 LREF: 474.8000 INCHES
 BREF: 536.8800 INCHES
 YREF: 1076.7000 IN. YD
 ZREF: .0000 IN. YD
 SCALE: 375.0000 IN. 2D
 .0100

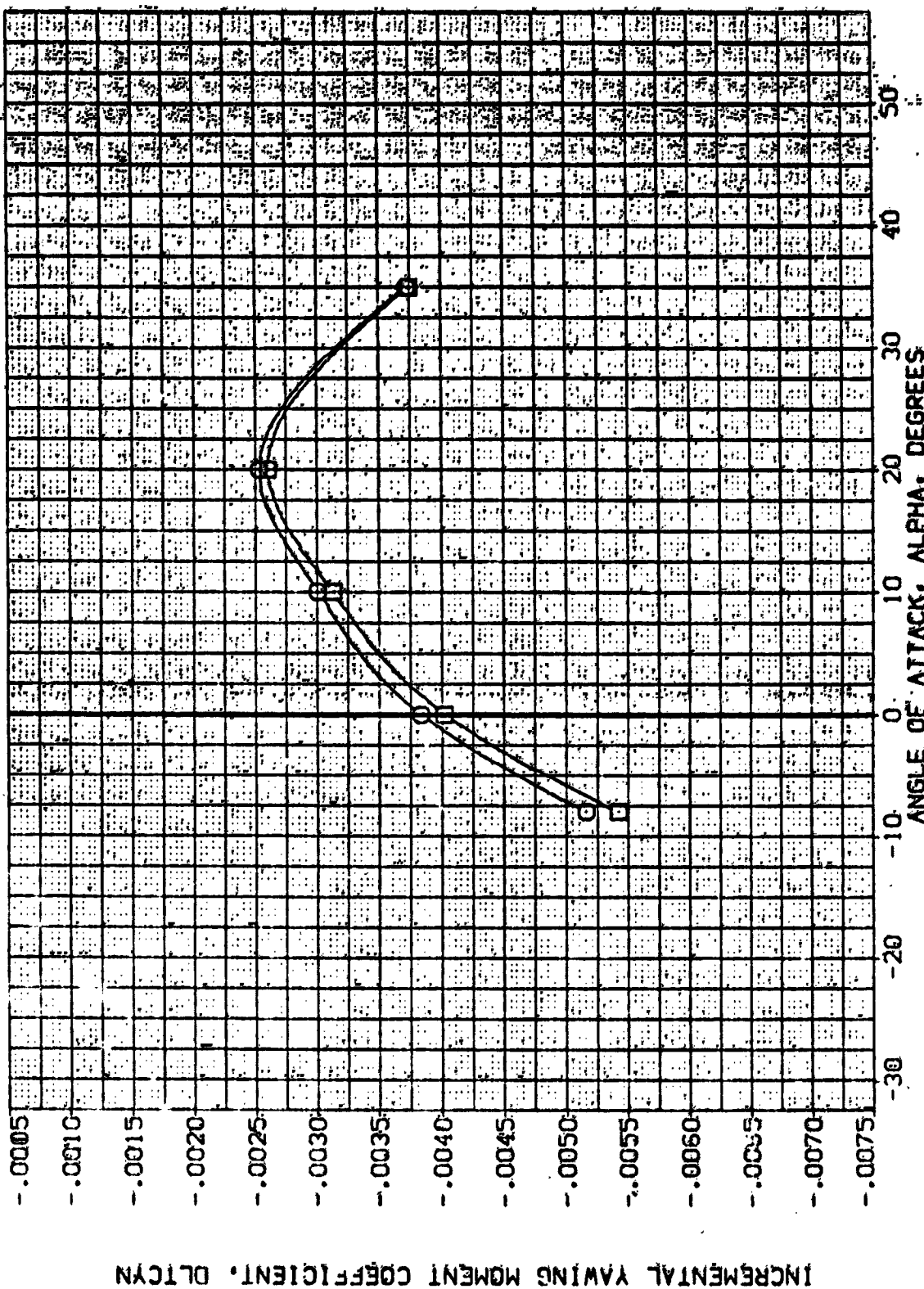


FIGURE 24. COMPARISON OF ON/OFF VS ON-OFF RUNS

(A)MACH = 10.33

DATA SET SYMBOL: (CJAD03) B (CJAD06)

CONFIGURATION DESCRIPTION

QIN49 LARC CFMT 118 (MA-221)
QIN49 LARC CFMT 118 (MA-221)

ELEVON 1/0A-1 80FLAP 82TA
.000 .000 .000
.000 .000 .000

REFERENCE INFORMATION
SREF 2650.0000 50.FT.
LREF 474.8000 INCHES
BREF 936.6000 INCHES
XREF 1076.7000 IN. NO
YREF .0000 IN. NO
ZREF 375.0000 IN. NO
SCALE .0100

INCREMENTAL SIDE FORCE COEFFICIENT, CLCY

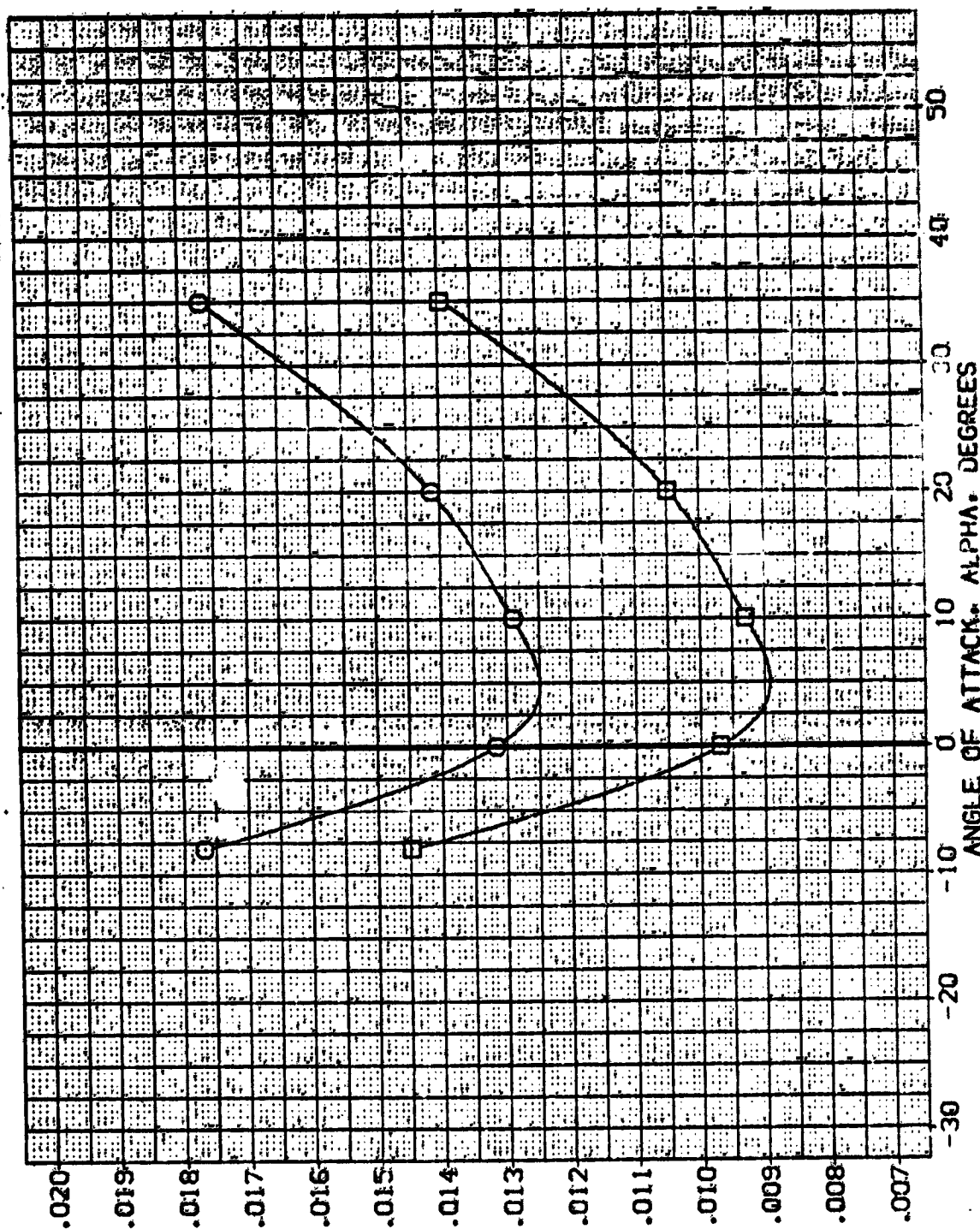


FIGURE 24. COMPARISON OF ON/OFF VS ON-OFF RUNS

(A)MACH = 10.33

REFERENCE INFORMATION
 SREF 2590.0000 INCHES
 LREF 474.8000 INCHES
 BREF 995.8000 INCHES
 XREF 1006.7000 INCHES
 YREF 375.0000 INCHES
 ZREF 375.0000 INCHES
 SCALE

ELEVON NO. JET ROTFLAP BETA
 .000 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) 01N79 LARC CFMT 118 (MA-22)
 (SJA002) 01N49 LARC CFMT 118 (MA-22)
 (SJA003) 01N83 LARC CFMT 119 (MA-22)

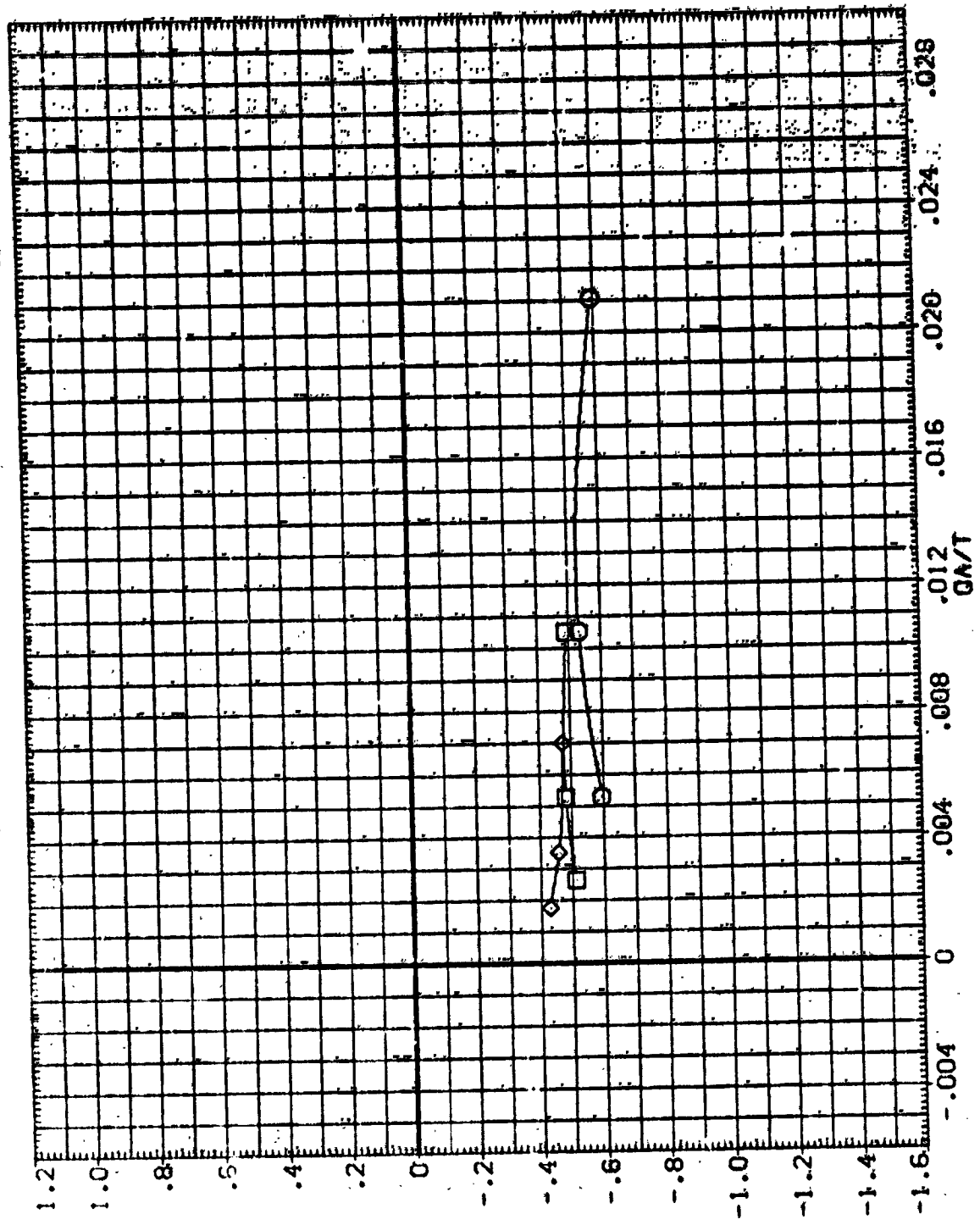


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(A) ALPHA = -8.00

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

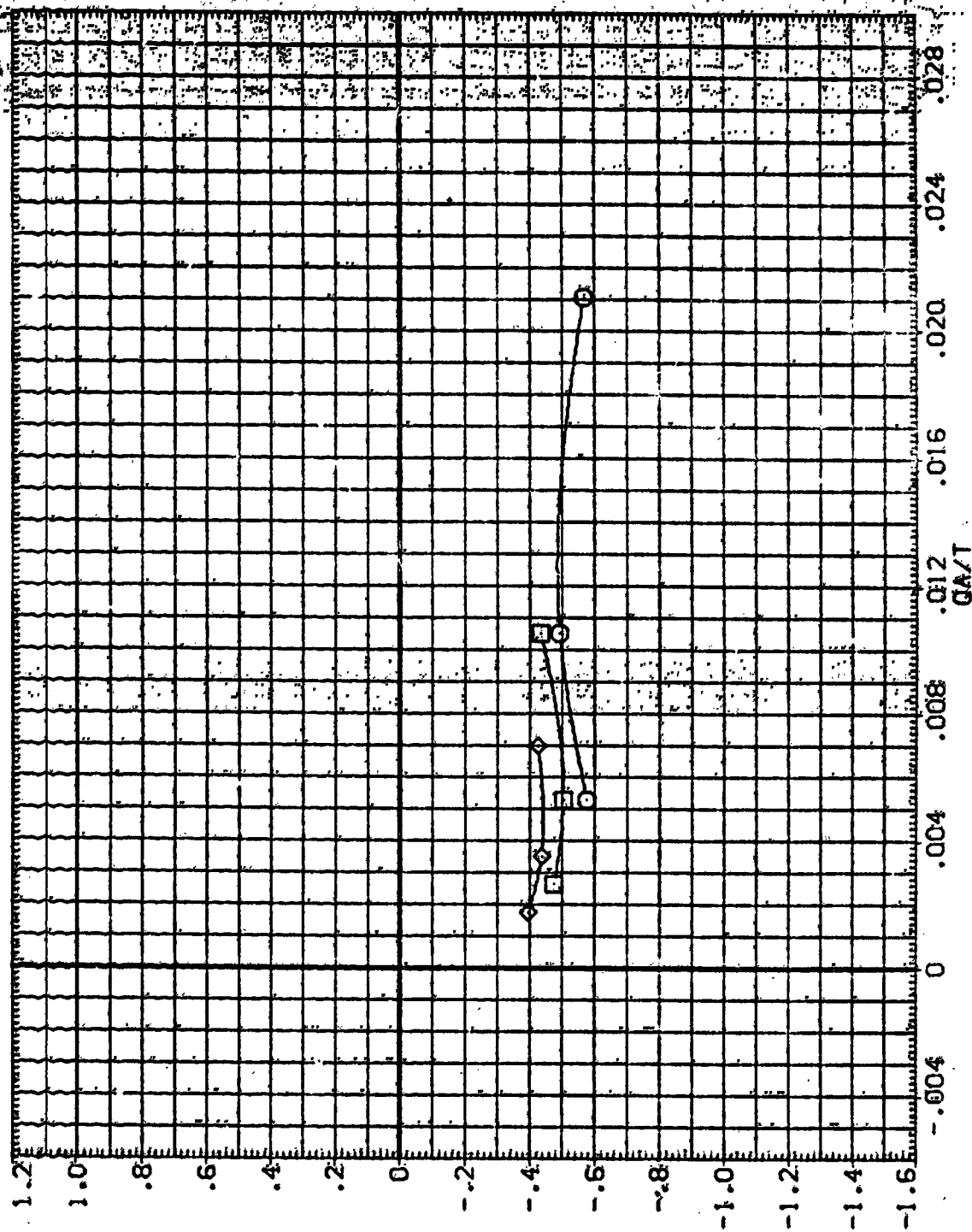
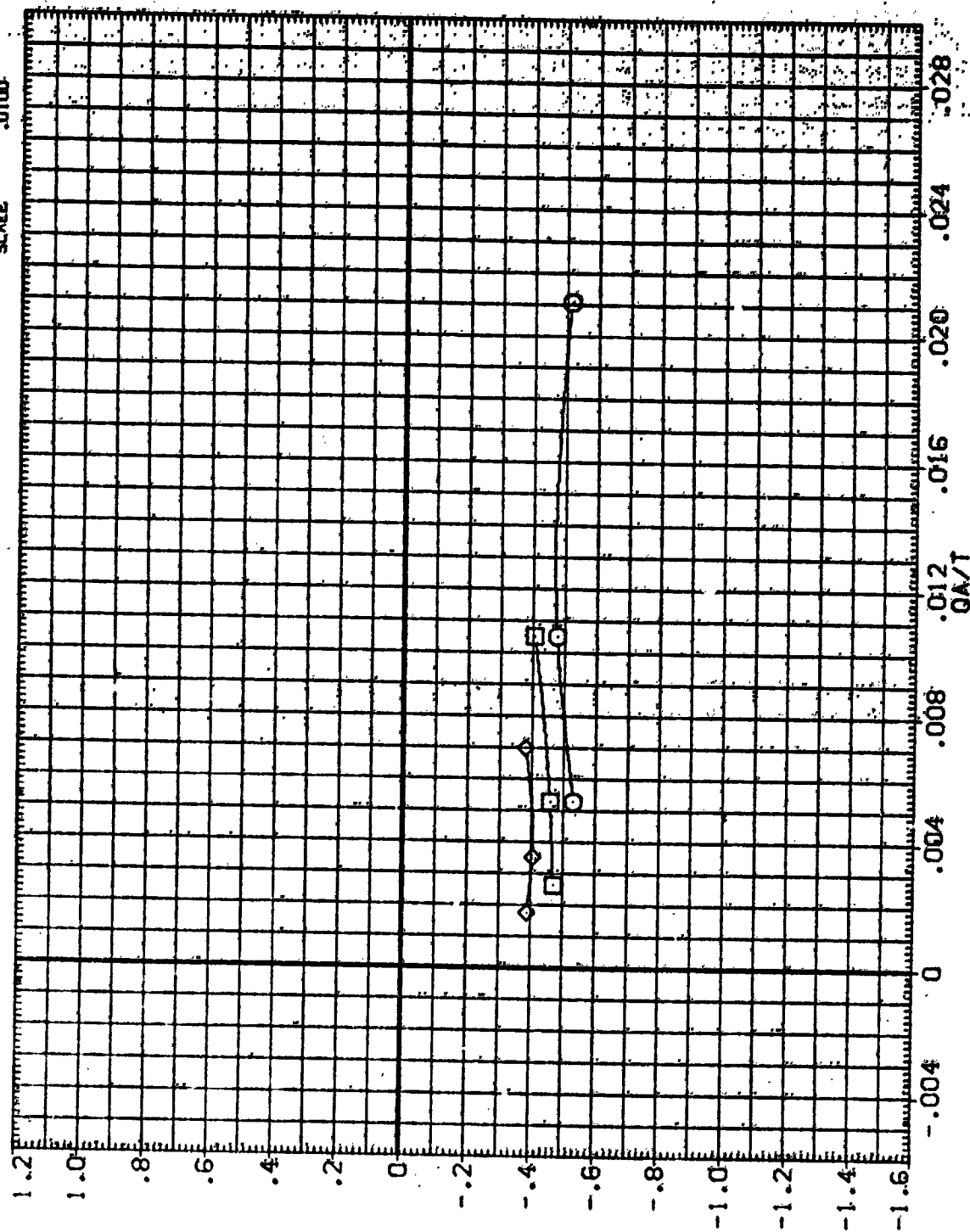


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

$[B]_{\text{ALPHA}} = -6.00$

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) QIN09 LARC CFHT 118 (MA-22)
 (SJA002) QIN49 LARC CFHT 118 (MA-22)
 (SJA003) QIN83 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDF LAP BETA REFERENCE INFORMATION
 .000 1.000 .000 .000 SREF 2638.0000 SQ. FT.
 .000 2.000 .000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 .000 BREF 936.6000 INCHES
 XMRP 1076.7000 IN. XG
 YMRP .0000 IN. YG
 ZMRP 395.0000 IN. ZG
 SCALE .0100



RCS JET AMPLIFICATION FACTOR = NORMAL FORCE, N(NF)

FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79,N49,N83

(C)ALPHA = -4.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001)	GIN79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 50 FT
(SJA002)	GIN49 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA003)	GIN83 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6800 INCHES
						XMRP 1076.7000 IN. X0
						YMRP .0000 IN. Y0
						ZMRP 375.0000 IN. Z0
						SCALE .0100

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, (N/NF)

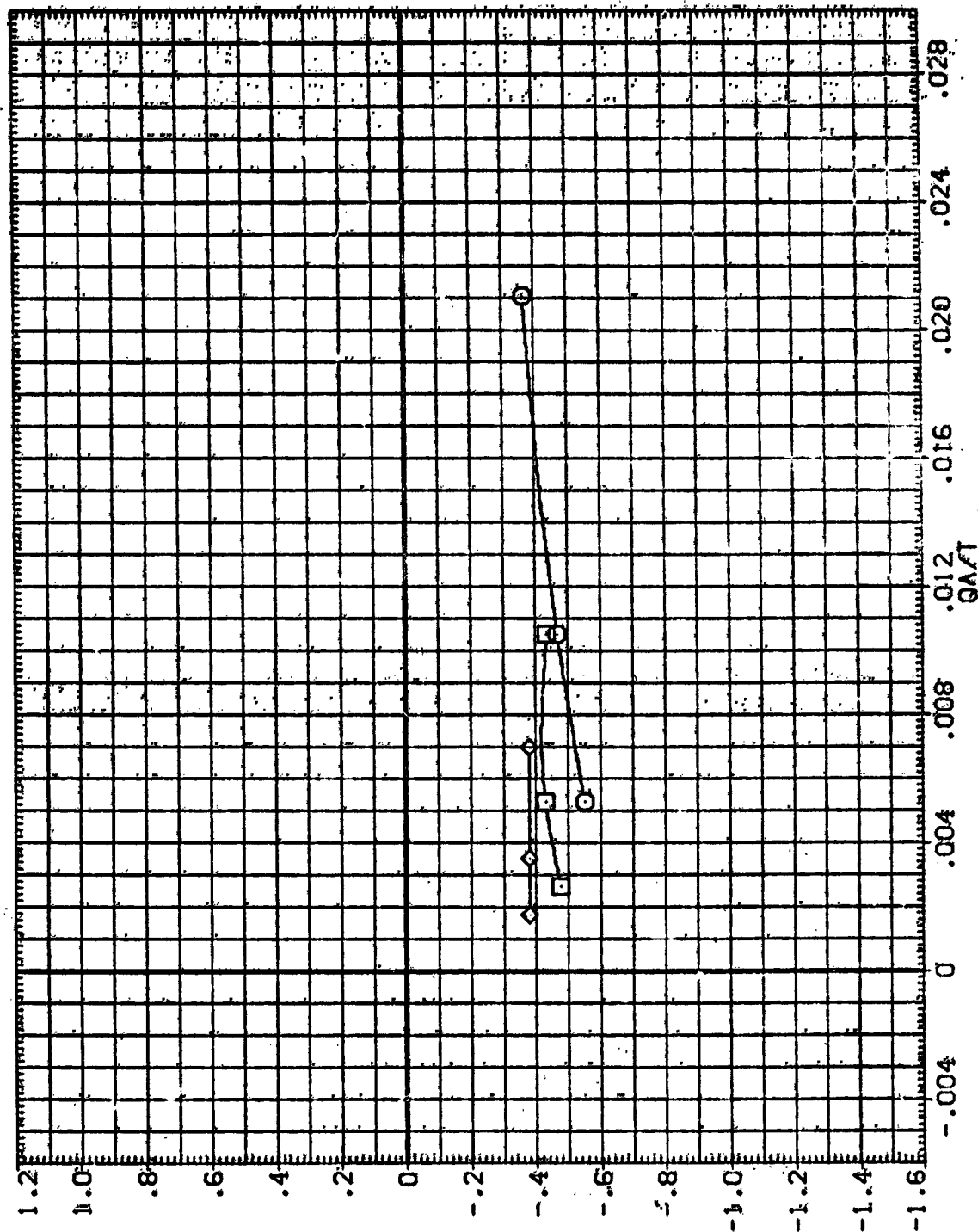
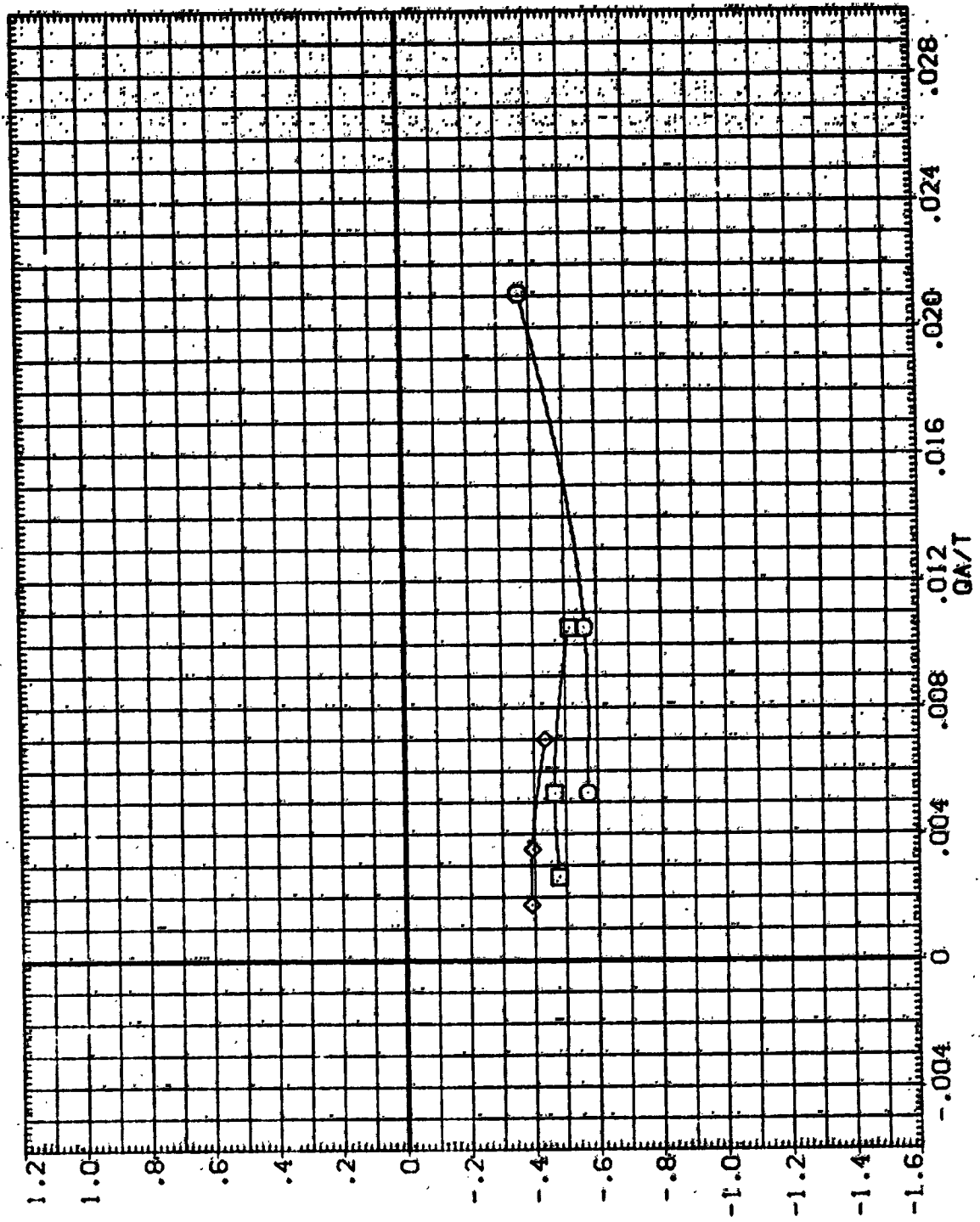


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(D) ALPHA = -2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) 01N79 LARC CFHT 118 (MA-22)
 (SJA002) 01N49 LARC CFHT 118 (MA-22)
 (SJA003) 01N83 LARC CFHT 118 (MA-22)

ELEVON NS.JET BDFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2690.0000 SQ.FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 BREF 936.6800 INCHES
 XREF 1076.7000 IN. X0
 YREF .0000 IN. Y0
 ZREF 373.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

(E)ALPHA = .00

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, (N/F)

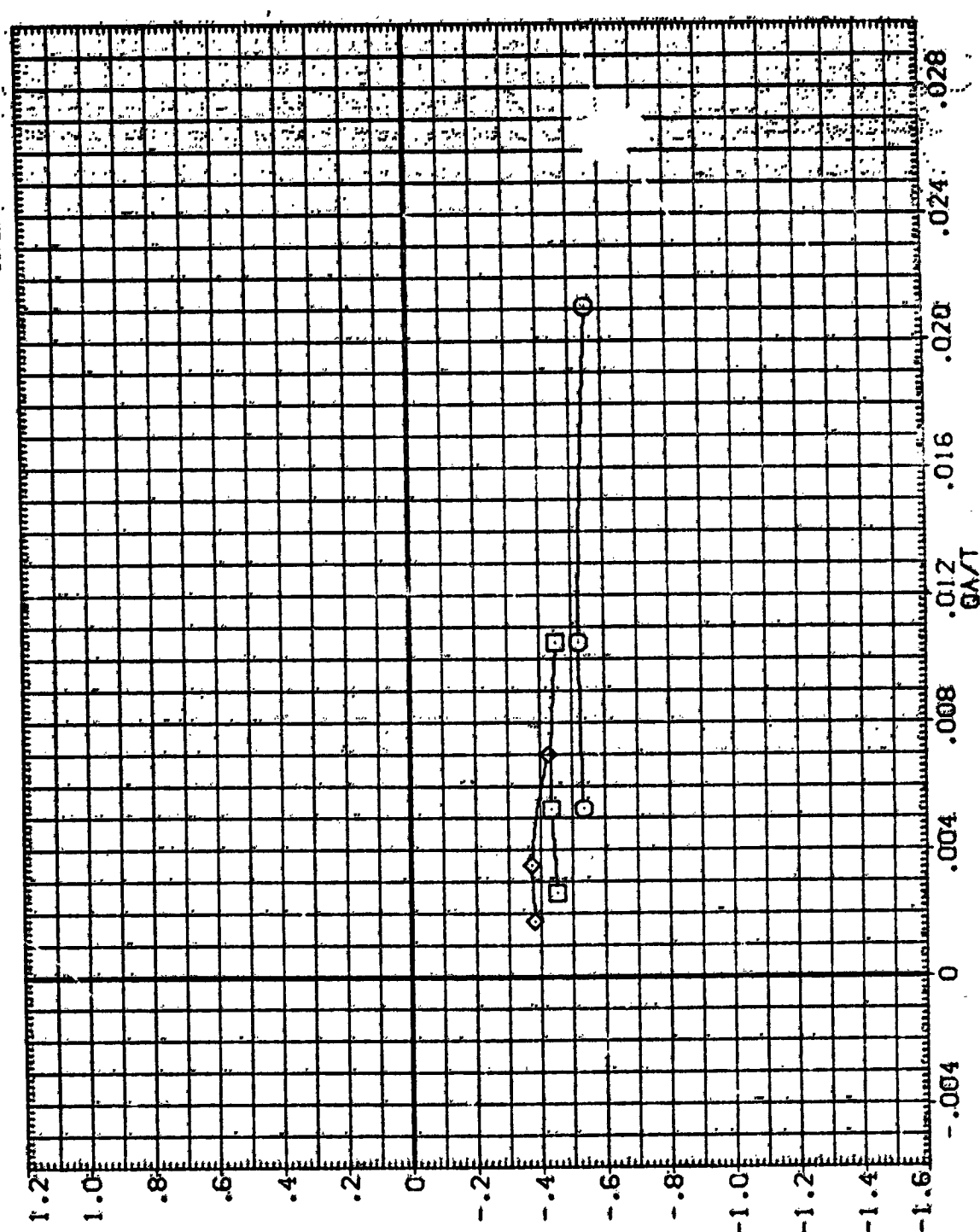


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(α) ALPHA = 2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) QIN79 LARC CFHT 118 (MA-22)
 (SJA002) QIN49 LARC CFHT 118 (MA-22)
 (SJA003) QIN83 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2690.0000 SO.FT.
 .000 2.000 .000 LREF 174.8000 INCHES
 .000 3.000 .000 BREF 936.5800 INCHES
 .000 3.000 .000 XMRP 1076.7000 IN. 10
 .000 3.000 .000 YMRP 375.0000 IN. 10
 .000 3.000 .000 ZMRP 375.0000 IN. 10
 .000 3.000 .000 SCALE .0100

DATA SET SYMBOL: 01N93, 01N49, 01N83
 CONFIGURATION DESCRIPTION: LARC CFMT 118 (MA-22), LARC CFMT 118 (MA-22), LARC CFMT 118 (MA-22)

ELEVON: .000, .000, .000
 NO. JET: 1.000, 2.000, 3.000
 BDELAP: .000, .000, .000
 BETA: .000, .000, .000
 REFERENCE INFORMATION: SREF 2690.0000 SO. FT., LREF 474.8000 INCHES, BREF 936.6000 INCHES, XMRP 1076.7000 IN. X0, YMRP .0000 IN. Y0, ZMRP 375.0000 IN. Z0, SCALE .0100

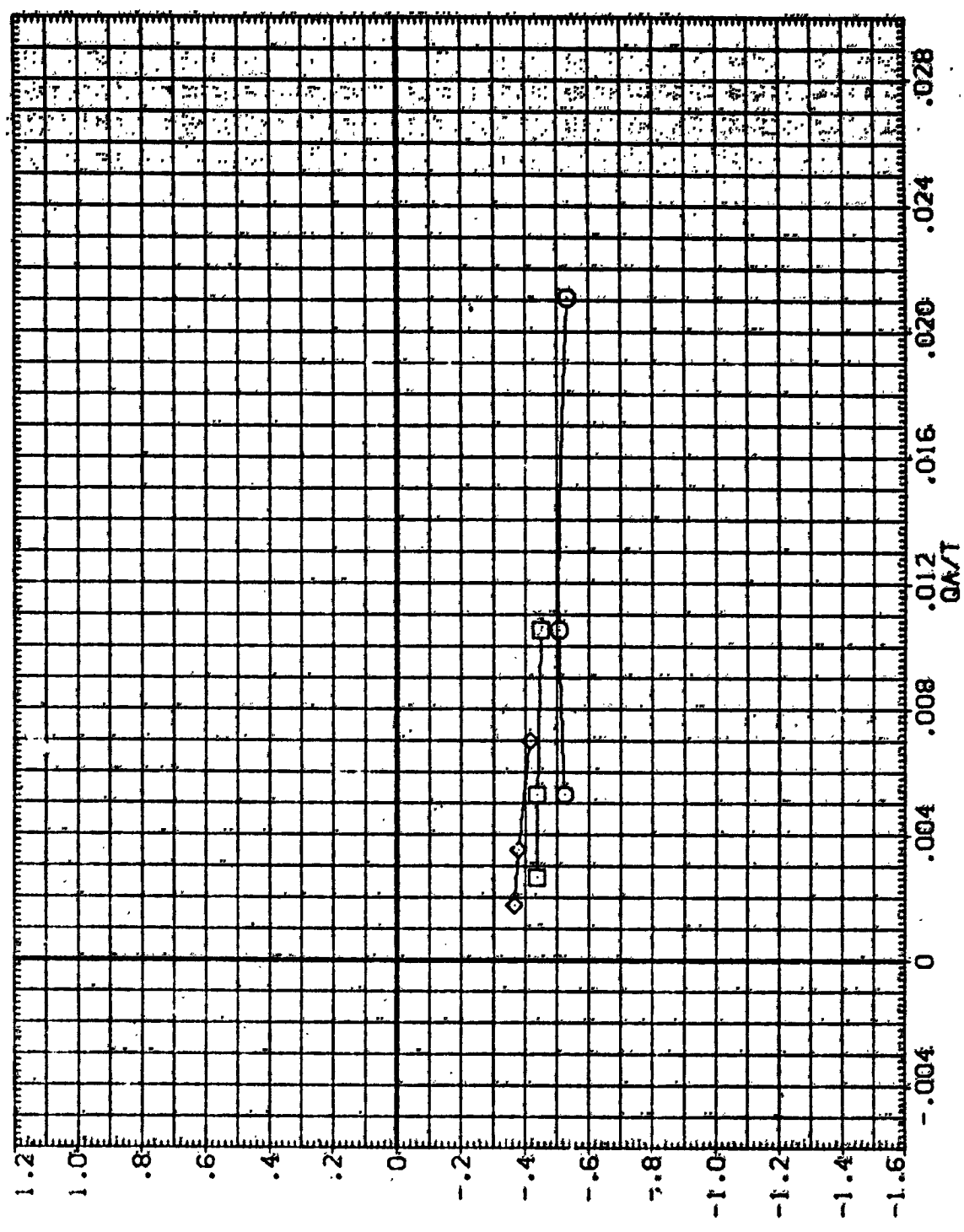


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(GJALPHA = 4.00)

DATA SET SYMBOL	01N79	01N49	01N83	CONFIGURATION DESCRIPTION	LARC CFHT 118 (MA-22)	LARC CFHT 118 (MA-22)	LARC CFHT 118 (MA-22)
(SJA001)	01N79	01N49	01N83				
(SJA002)							
(SJA003)							

ELEVATION	NO. JET	WING LIFT	WING AREA	WING CHORD	WING SPAN	WING TAPER	WING INCIDENCE
.000	1.000	.000	.000	.000	.000	.000	.000
.000	2.000	.000	.000	.000	.000	.000	.000
.000	3.000	.000	.000	.000	.000	.000	.000

WING REFERENCE	WING REFERENCE	WING REFERENCE	WING REFERENCE	WING REFERENCE	WING REFERENCE	WING REFERENCE	WING REFERENCE
SREF	LREF	BREF	XREF	YREF	ZREF	SCALE	IN. 70
2690.0000	474.8000	936.6800	1076.7000	.0000	.0000	.0100	IN. 70

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

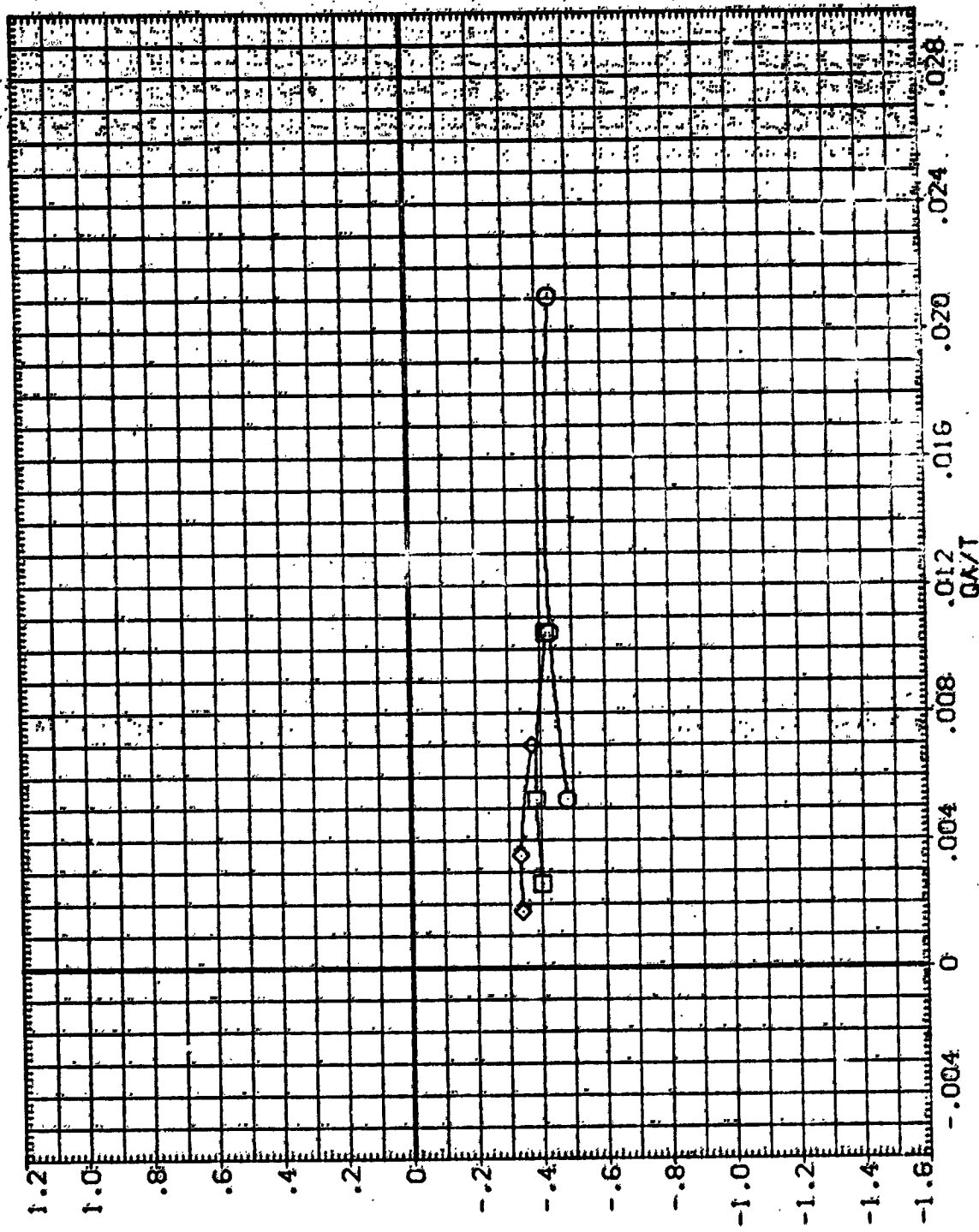


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

(H)ALPHA = 6.00

ELEVATION		NO. JET		BDFLAP		BETA		REFERENCE INFORMATION		SD. FT.	
.000	.000	1.000	.000	SREF	2690.0000						INCHES
.000	.000	2.000	.000	LAFEF	474.8000						INCHES
.000	.000	3.000	.000	BREF	936.6800						IN. X0
.000	.000			YREF	1076.7000						IN. Y0
				YPRR	000.0						IN. Z0
				ZPRR	375.0000						
				SCALE	.0100						

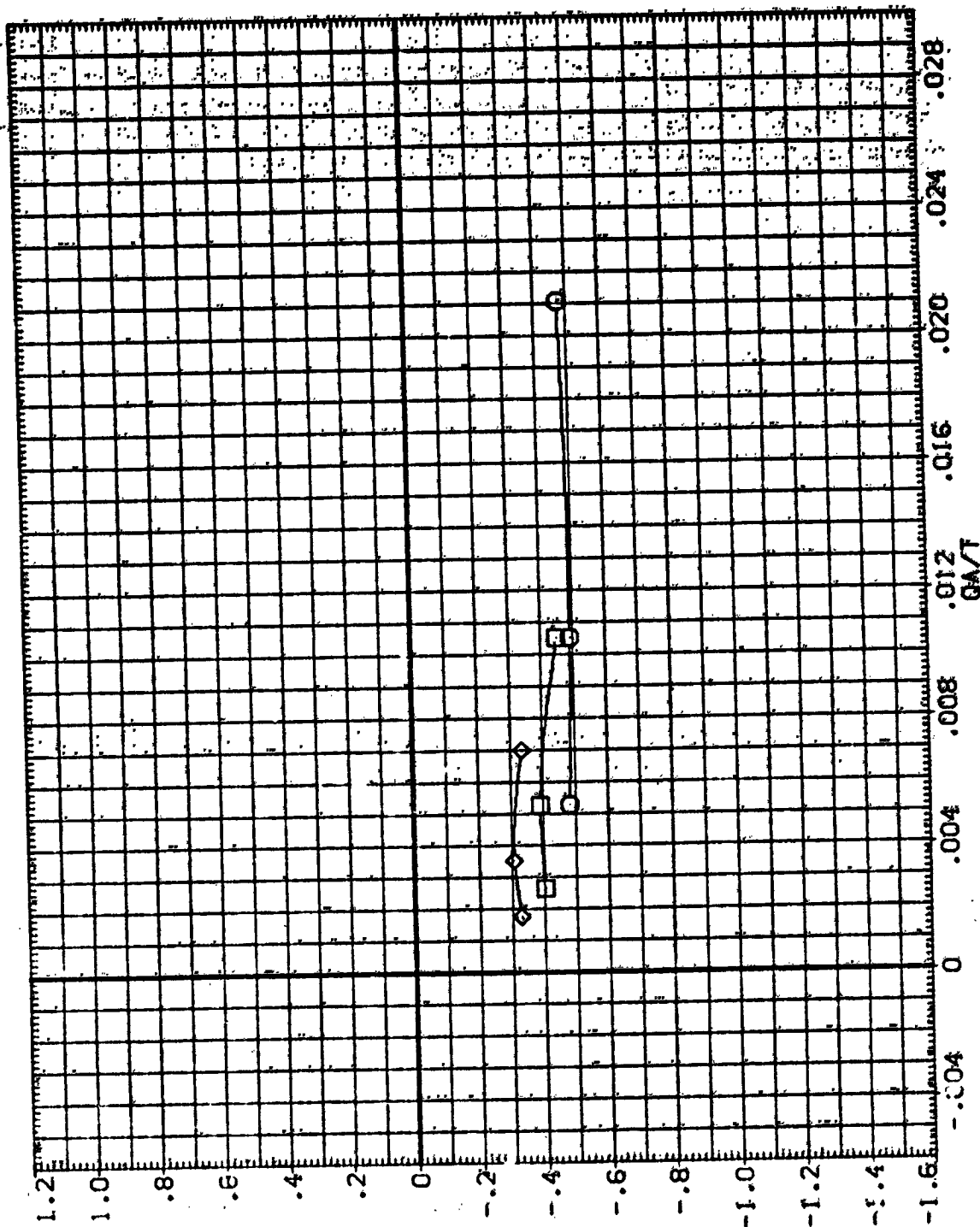


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79, N49, N83

$$C(\alpha) = 8.00$$

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE. N(NF)

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
CSJA00F.1	QIN79	LARC CFMT 118 CNA-229
CSJA002.1	QIN49	LARC CFMT 118 CNA-221
CSJA003.1	QIN83	LARC CFMT 118 CNA-225

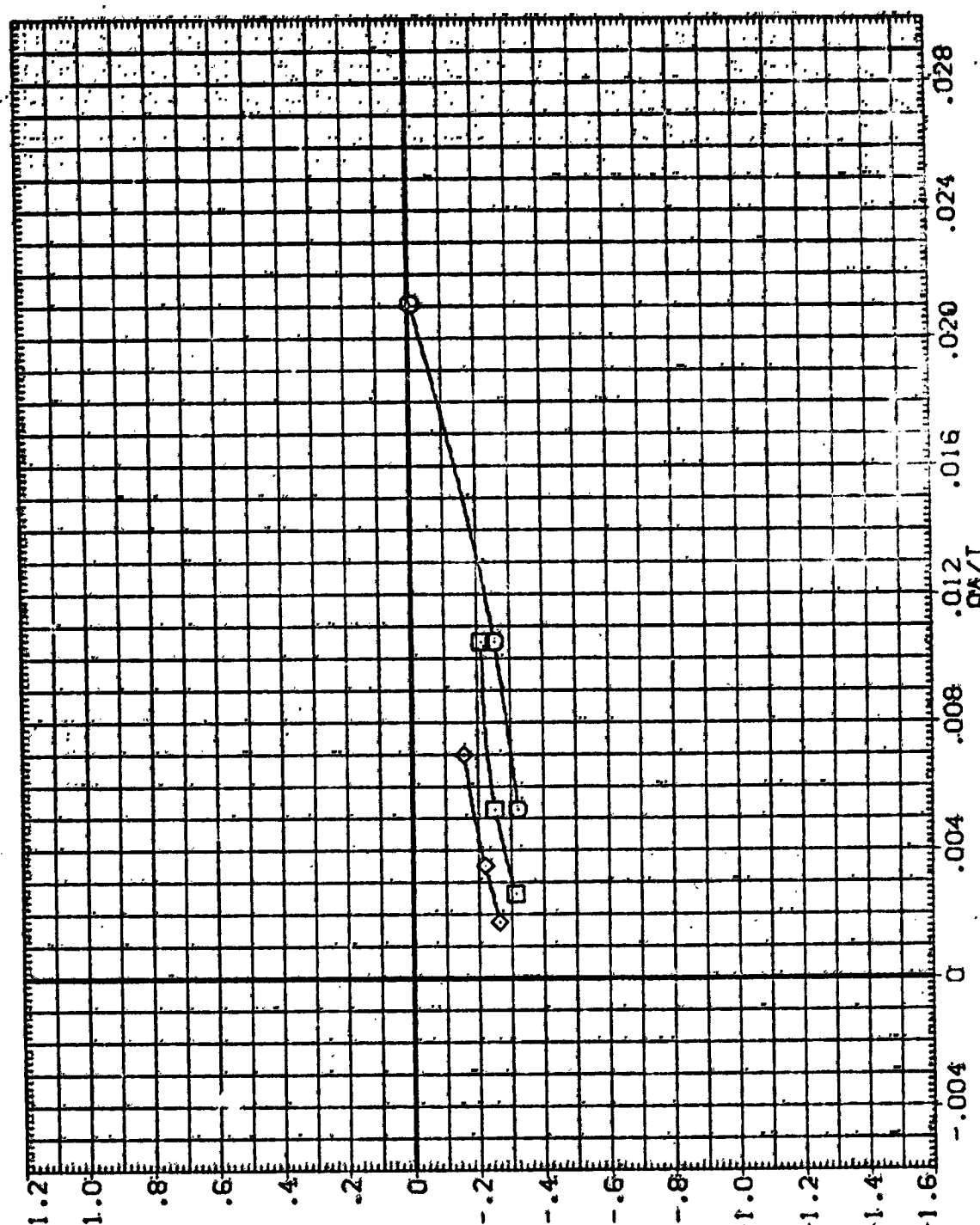


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79-N49-N83
(J)ALPHA = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJAC31) QW79 LARC CFHT 118 (NA-22)
 (SJAC32) QW49 LARC CFHT 118 (NA-22)
 (SJAC33) QW83 LARC CFHT 118 (NA-22)

ELEVON NO JET BOFLAP BETA
 .000 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 506.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

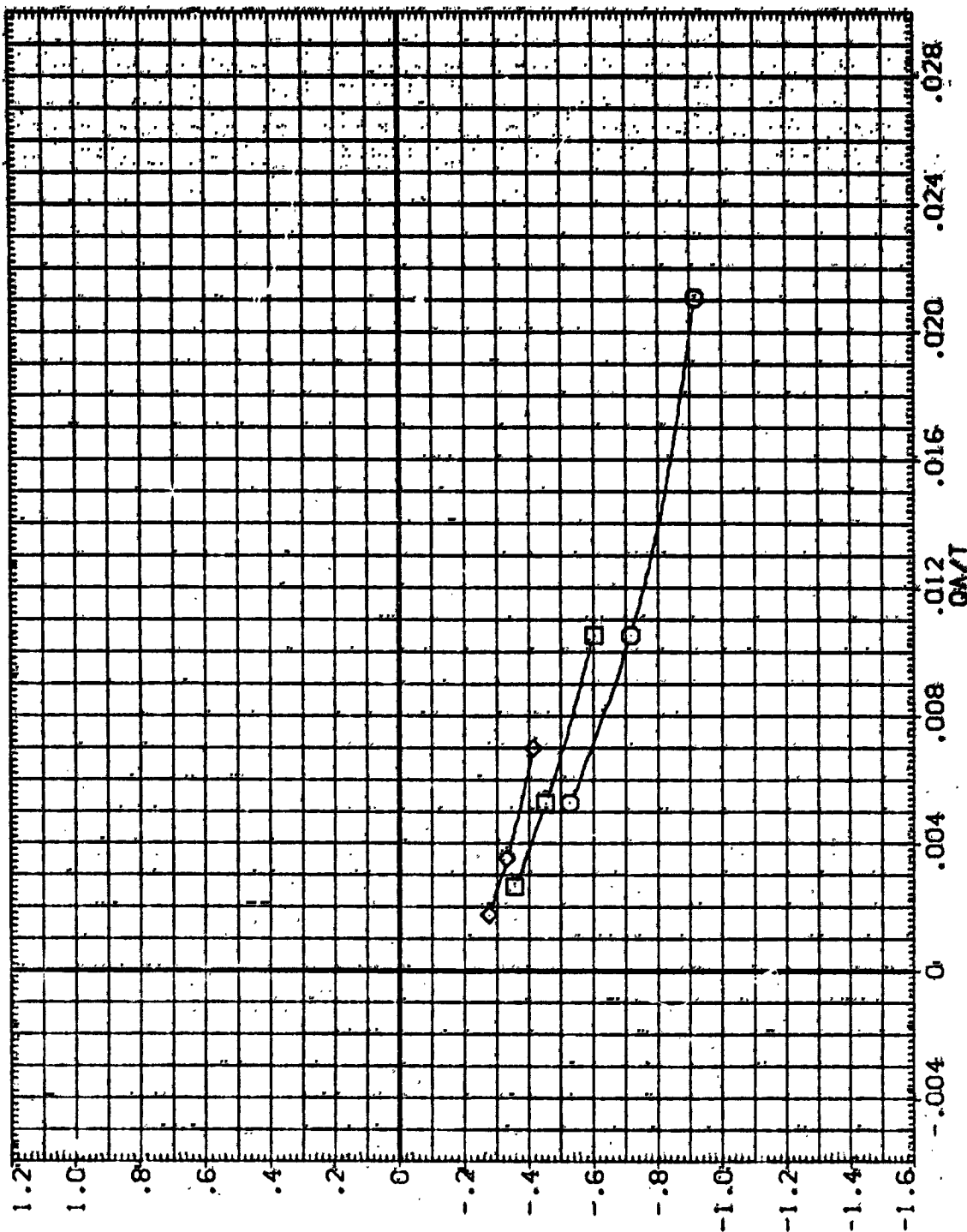


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79,N49,N83

(K)ALPHA = 15.00

REFERENCE INFORMATION
 SREF 2690.0000 50 FT.
 LREF 474.8000 INCHES
 BREF 916.6800 INCHES
 XREF 1076.7000 IN. TO
 YREF 0.0000 IN. TO
 ZREF 375.0000 IN. TO
 SCALE .0100

ELEVON NO. JET BOFLAP BETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) QIN73 LARC CFHT 118 CMA-221
 (SJA002) QIN49 LARC CFHT 118 CMA-221
 (SJA003) QIN83 LARC CFHT 118 CMA-221

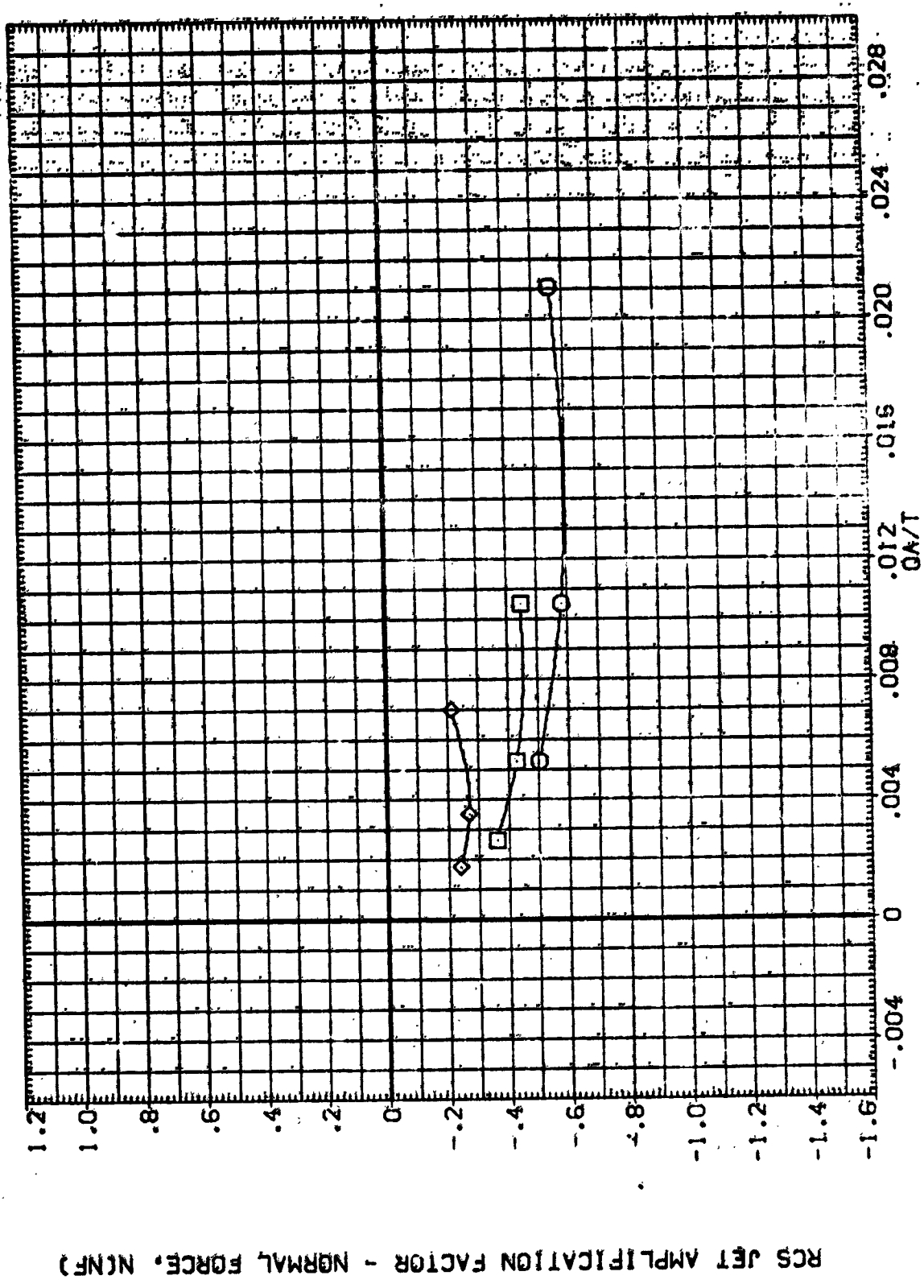


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, 179, 149, 183

(L)ALPHA = 20.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) QIN79 LARC CFHT 118 (MA-22)
 (SJA002) QIN49 LARC CFHT 118 (MA-22)
 (SJA003) QIN83 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDSLAP BETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 50 FT.
 LREF 474.8000 INCHES
 BREF 936.6000 INCHES
 XREF 1076.7000 IN. X0
 YREF 375.0000 IN. Y0
 ZREF .0100 IN. Z0
 SCALE

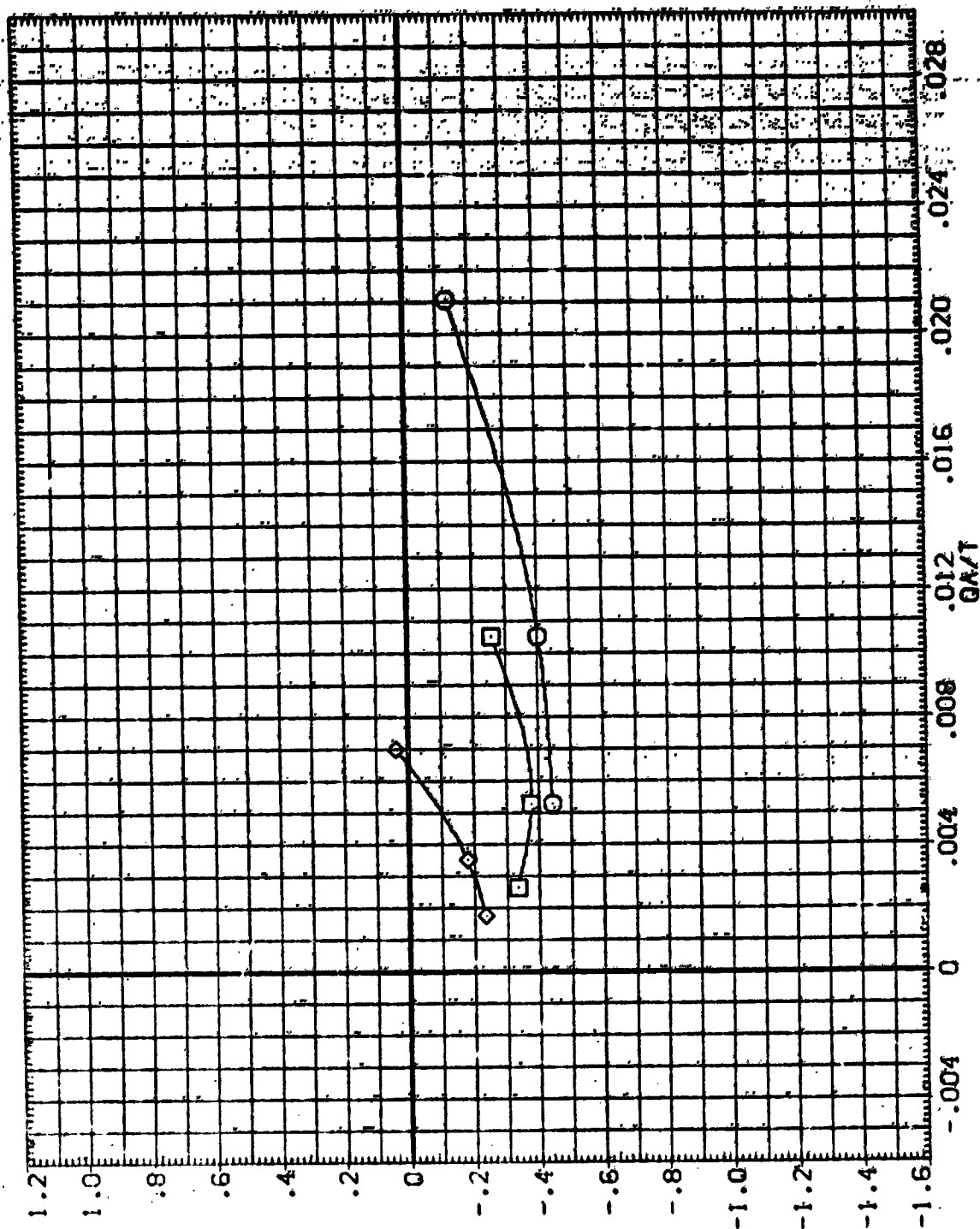


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83
 (M)ALPHA = 25.00

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(SJA001)	QIN79	LARE CFMT 118 (MA-221)
(SJA002)	QIN49	LARE CFMT 118 (MA-221)
(SJA003)	QIN83	LARE CFMT 118 (MA-221)

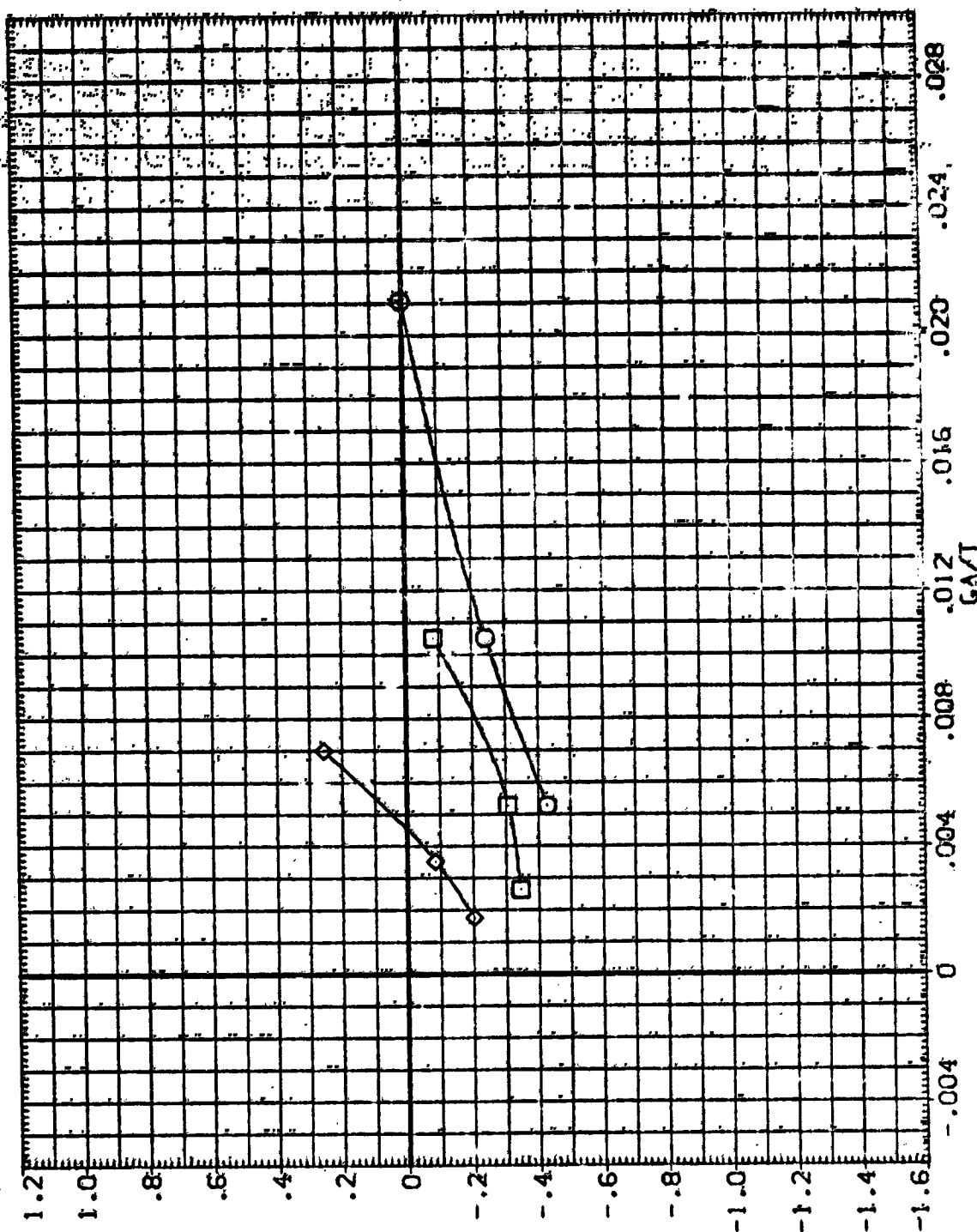


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.149.N82
(N)ALPHA = 30.00°

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	DISFLAP	BETA	REFERENCE INFORMATION
(SJA801)	LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	SPEC 2890.0000 SO. FT.
(SJA812)	LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA833)	LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	BREF 938.6800 INCHES
						XREF 1076.7000 IN. IN
						YREF 5000 IN. IN
						ZREF 375.0000 IN. IN
						SCALE .0100

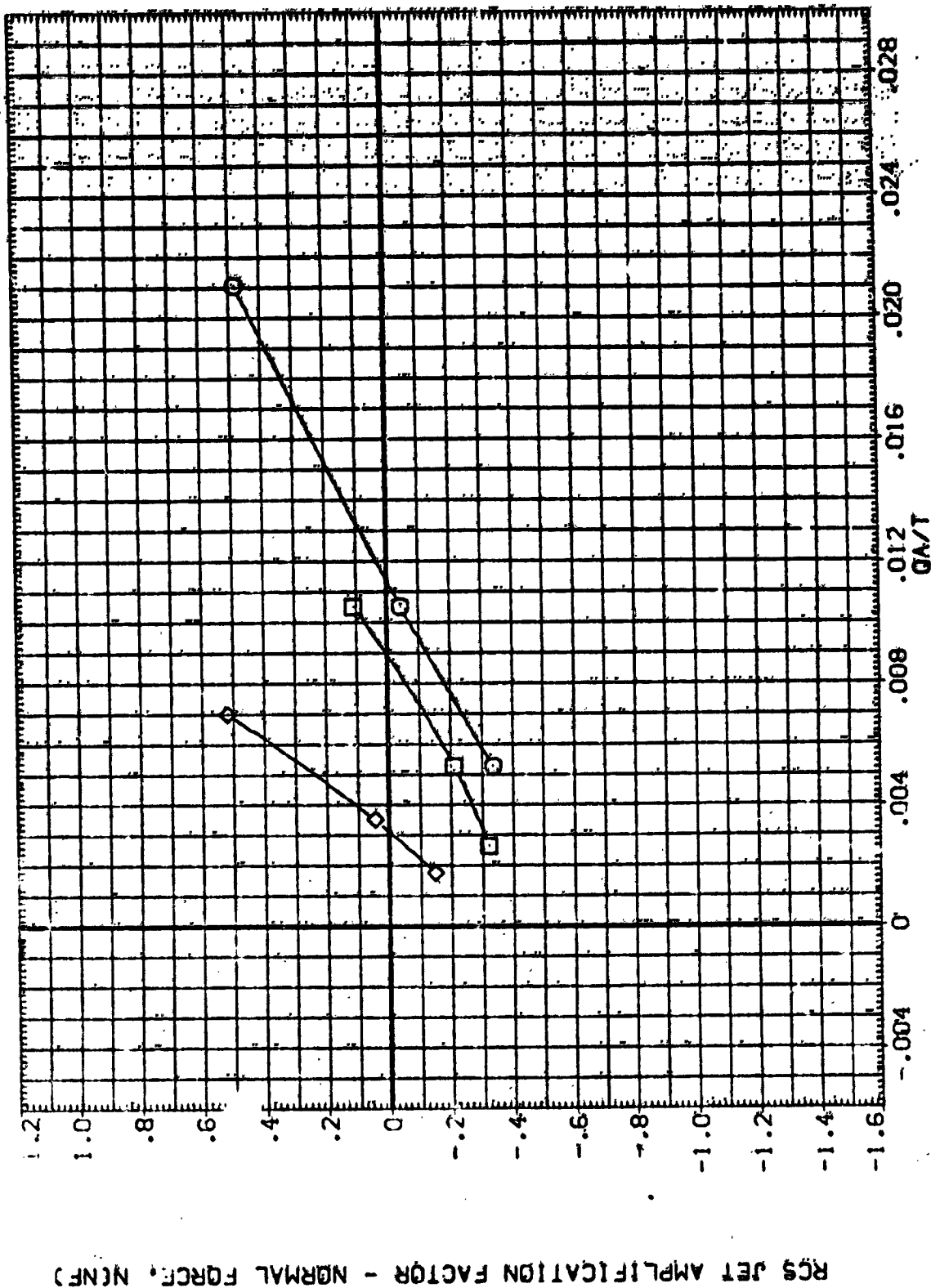


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79-N49-N83

(C) ALPHA = 35.00

DATA AND SYMBOLS
 (SJA001) LARC CFHT 118 DIA-22)
 (SJA002) LARC CFHT 118 DIA-22)
 (SJA003) LARC CFHT 118 DIA-22)
 (SJA004) LARC CFHT 118 DIA-22)
 (SJA005) LARC CFHT 118 DIA-22)
 (SJA006) LARC CFHT 118 DIA-22)
 (SJA007) LARC CFHT 118 DIA-22)
 (SJA008) LARC CFHT 118 DIA-22)
 (SJA009) LARC CFHT 118 DIA-22)
 (SJA010) LARC CFHT 118 DIA-22)
 (SJA011) LARC CFHT 118 DIA-22)
 (SJA012) LARC CFHT 118 DIA-22)
 (SJA013) LARC CFHT 118 DIA-22)
 (SJA014) LARC CFHT 118 DIA-22)
 (SJA015) LARC CFHT 118 DIA-22)
 (SJA016) LARC CFHT 118 DIA-22)
 (SJA017) LARC CFHT 118 DIA-22)
 (SJA018) LARC CFHT 118 DIA-22)
 (SJA019) LARC CFHT 118 DIA-22)
 (SJA020) LARC CFHT 118 DIA-22)
 (SJA021) LARC CFHT 118 DIA-22)
 (SJA022) LARC CFHT 118 DIA-22)
 (SJA023) LARC CFHT 118 DIA-22)
 (SJA024) LARC CFHT 118 DIA-22)
 (SJA025) LARC CFHT 118 DIA-22)
 (SJA026) LARC CFHT 118 DIA-22)
 (SJA027) LARC CFHT 118 DIA-22)
 (SJA028) LARC CFHT 118 DIA-22)
 (SJA029) LARC CFHT 118 DIA-22)
 (SJA030) LARC CFHT 118 DIA-22)
 (SJA031) LARC CFHT 118 DIA-22)
 (SJA032) LARC CFHT 118 DIA-22)
 (SJA033) LARC CFHT 118 DIA-22)
 (SJA034) LARC CFHT 118 DIA-22)
 (SJA035) LARC CFHT 118 DIA-22)
 (SJA036) LARC CFHT 118 DIA-22)
 (SJA037) LARC CFHT 118 DIA-22)
 (SJA038) LARC CFHT 118 DIA-22)
 (SJA039) LARC CFHT 118 DIA-22)
 (SJA040) LARC CFHT 118 DIA-22)
 (SJA041) LARC CFHT 118 DIA-22)
 (SJA042) LARC CFHT 118 DIA-22)
 (SJA043) LARC CFHT 118 DIA-22)
 (SJA044) LARC CFHT 118 DIA-22)
 (SJA045) LARC CFHT 118 DIA-22)
 (SJA046) LARC CFHT 118 DIA-22)
 (SJA047) LARC CFHT 118 DIA-22)
 (SJA048) LARC CFHT 118 DIA-22)
 (SJA049) LARC CFHT 118 DIA-22)
 (SJA050) LARC CFHT 118 DIA-22)
 (SJA051) LARC CFHT 118 DIA-22)
 (SJA052) LARC CFHT 118 DIA-22)
 (SJA053) LARC CFHT 118 DIA-22)
 (SJA054) LARC CFHT 118 DIA-22)
 (SJA055) LARC CFHT 118 DIA-22)
 (SJA056) LARC CFHT 118 DIA-22)
 (SJA057) LARC CFHT 118 DIA-22)
 (SJA058) LARC CFHT 118 DIA-22)
 (SJA059) LARC CFHT 118 DIA-22)
 (SJA060) LARC CFHT 118 DIA-22)
 (SJA061) LARC CFHT 118 DIA-22)
 (SJA062) LARC CFHT 118 DIA-22)
 (SJA063) LARC CFHT 118 DIA-22)
 (SJA064) LARC CFHT 118 DIA-22)
 (SJA065) LARC CFHT 118 DIA-22)
 (SJA066) LARC CFHT 118 DIA-22)
 (SJA067) LARC CFHT 118 DIA-22)
 (SJA068) LARC CFHT 118 DIA-22)
 (SJA069) LARC CFHT 118 DIA-22)
 (SJA070) LARC CFHT 118 DIA-22)
 (SJA071) LARC CFHT 118 DIA-22)
 (SJA072) LARC CFHT 118 DIA-22)
 (SJA073) LARC CFHT 118 DIA-22)
 (SJA074) LARC CFHT 118 DIA-22)
 (SJA075) LARC CFHT 118 DIA-22)
 (SJA076) LARC CFHT 118 DIA-22)
 (SJA077) LARC CFHT 118 DIA-22)
 (SJA078) LARC CFHT 118 DIA-22)
 (SJA079) LARC CFHT 118 DIA-22)
 (SJA080) LARC CFHT 118 DIA-22)
 (SJA081) LARC CFHT 118 DIA-22)
 (SJA082) LARC CFHT 118 DIA-22)
 (SJA083) LARC CFHT 118 DIA-22)
 (SJA084) LARC CFHT 118 DIA-22)
 (SJA085) LARC CFHT 118 DIA-22)
 (SJA086) LARC CFHT 118 DIA-22)
 (SJA087) LARC CFHT 118 DIA-22)
 (SJA088) LARC CFHT 118 DIA-22)
 (SJA089) LARC CFHT 118 DIA-22)
 (SJA090) LARC CFHT 118 DIA-22)
 (SJA091) LARC CFHT 118 DIA-22)
 (SJA092) LARC CFHT 118 DIA-22)
 (SJA093) LARC CFHT 118 DIA-22)
 (SJA094) LARC CFHT 118 DIA-22)
 (SJA095) LARC CFHT 118 DIA-22)
 (SJA096) LARC CFHT 118 DIA-22)
 (SJA097) LARC CFHT 118 DIA-22)
 (SJA098) LARC CFHT 118 DIA-22)
 (SJA099) LARC CFHT 118 DIA-22)
 (SJA100) LARC CFHT 118 DIA-22)

RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

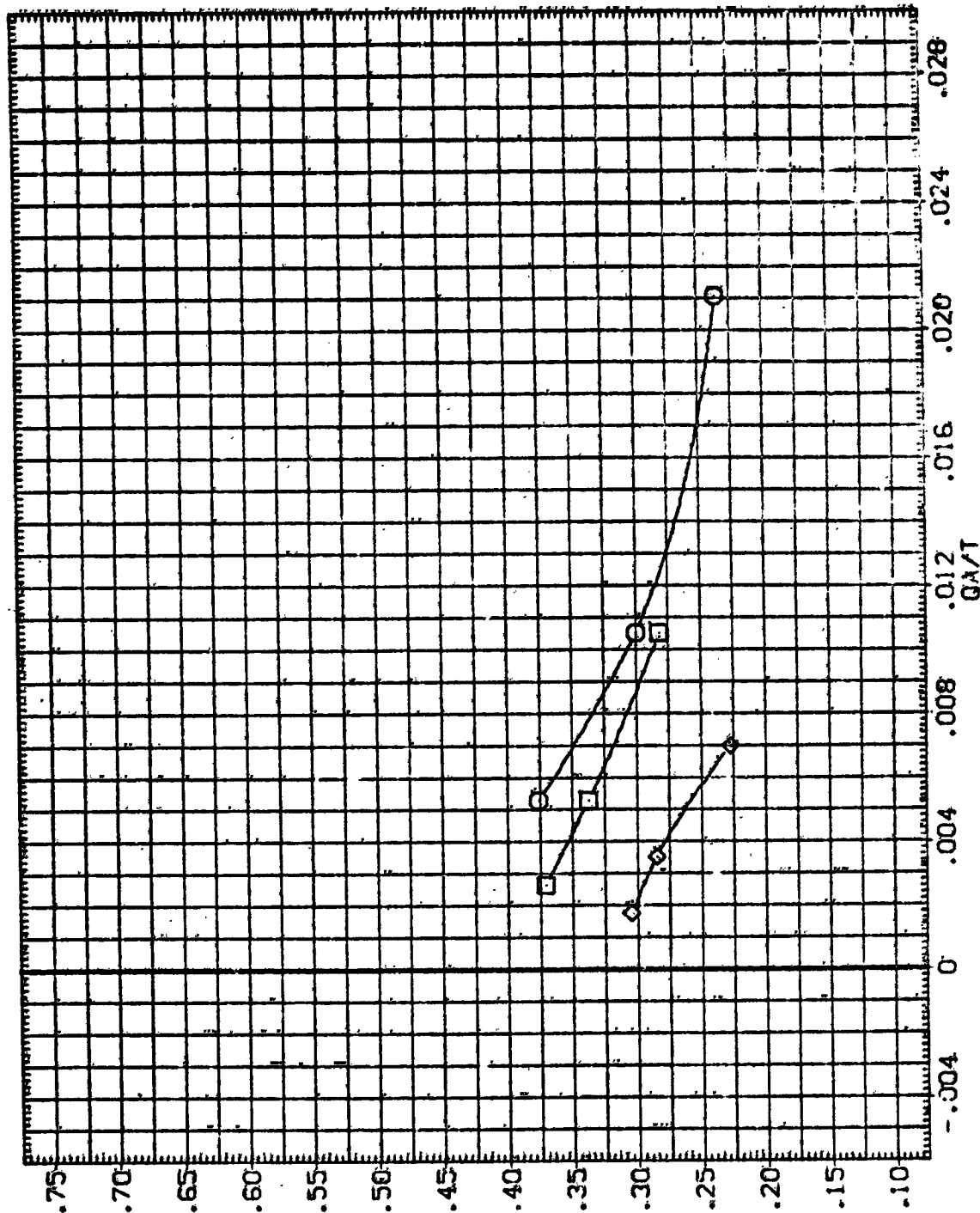


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, H79,N49,N83

(ALPHA = -8.00)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(SJAC01) QIN79 LARC CFMT 118 (MA-22)

(SJAD02) QIN49 LARC CFMT 118 (MA-22)

(SJAD03) QIN83 LARC CFMT 118 (MA-22)

ELEVON NO. JET BCFLAP BETA REFERENCE INFORMATION

.000 1.000 .000 .000 STREF 2690.0000 SQ. FT.

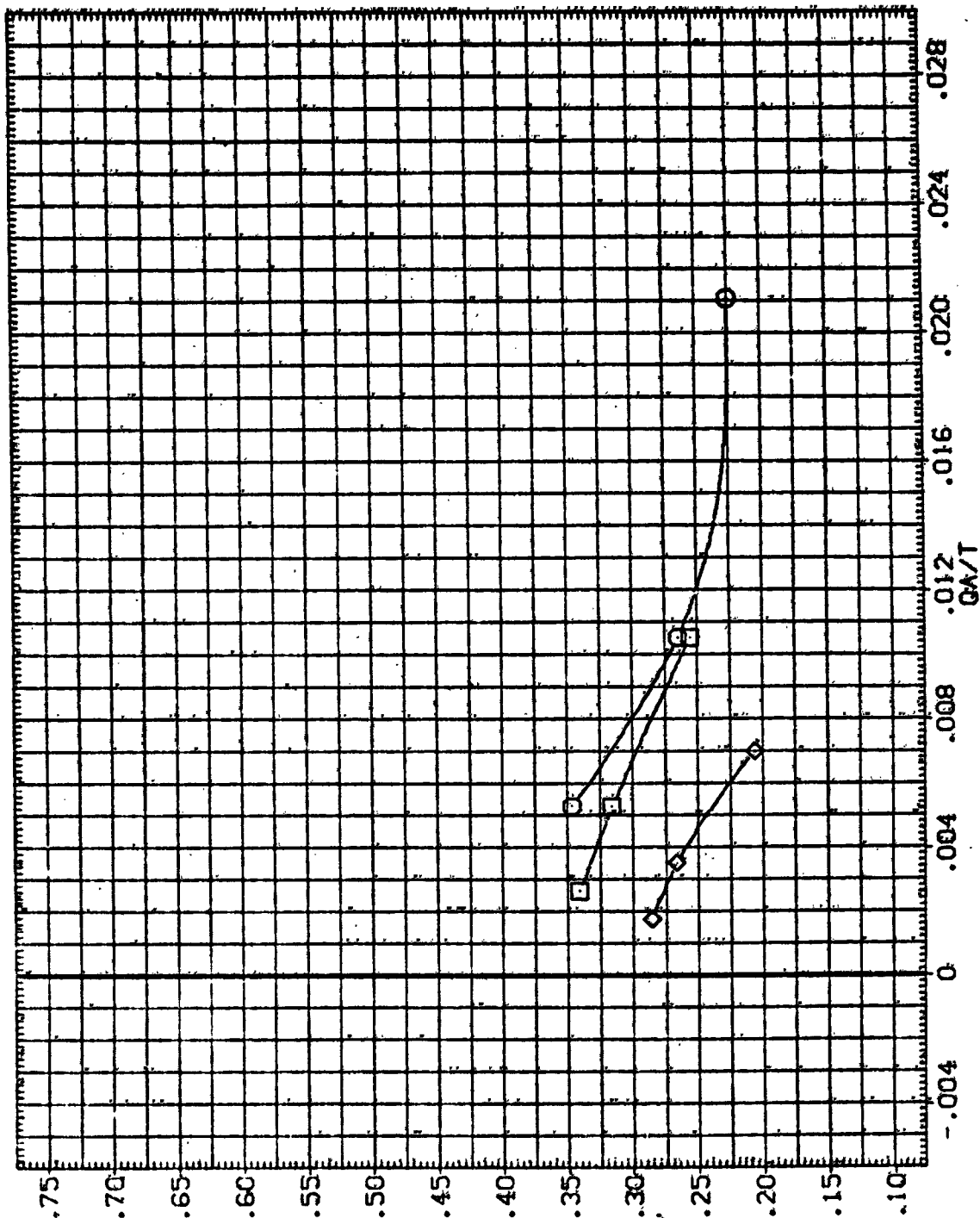
.000 2.000 .000 .000 LREF 474.8000 INCHES

.000 3.000 .000 .000 BRFP 936.6800 INCHES

YMRP 1076.7000 IN. YD

ZMRP 375.0000 IN. YD

SCALE .0100



RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79.N49.N83
(BJALPHA = -6.00)

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NO. 1000

(SJA001)	QJN79	LARC CFHT	118	(MA-22)
(SJA002)	QJN49	LARC CFHT	118	(MA-22)
(SJA003)	QJN83	LARC CFHT	118	(MA-22)

ELEVON	NO. JET	BOFLAP	BEYA	REFERENCE INFORMATION	SO. FT.	INCHES	IN. TO	IN. YD	ZS
.000	1.000	.000	.000	SREF	2690.0000				
.000	2.000	.000	.000	LREF	474.8000				
.000	3.000	.000	.000	BREF	538.6800				
				YRRP	1076.7060				
				ZRRP	375.0000				
				SCALE	.0100				

REFERENCE INFORMATION	
SREF	2690.0000
LREF	474.8000
BREF	938.6800
XMRP	1076.7090
YMRP	.0000
ZMRP	375.0000
SCALE	.0700

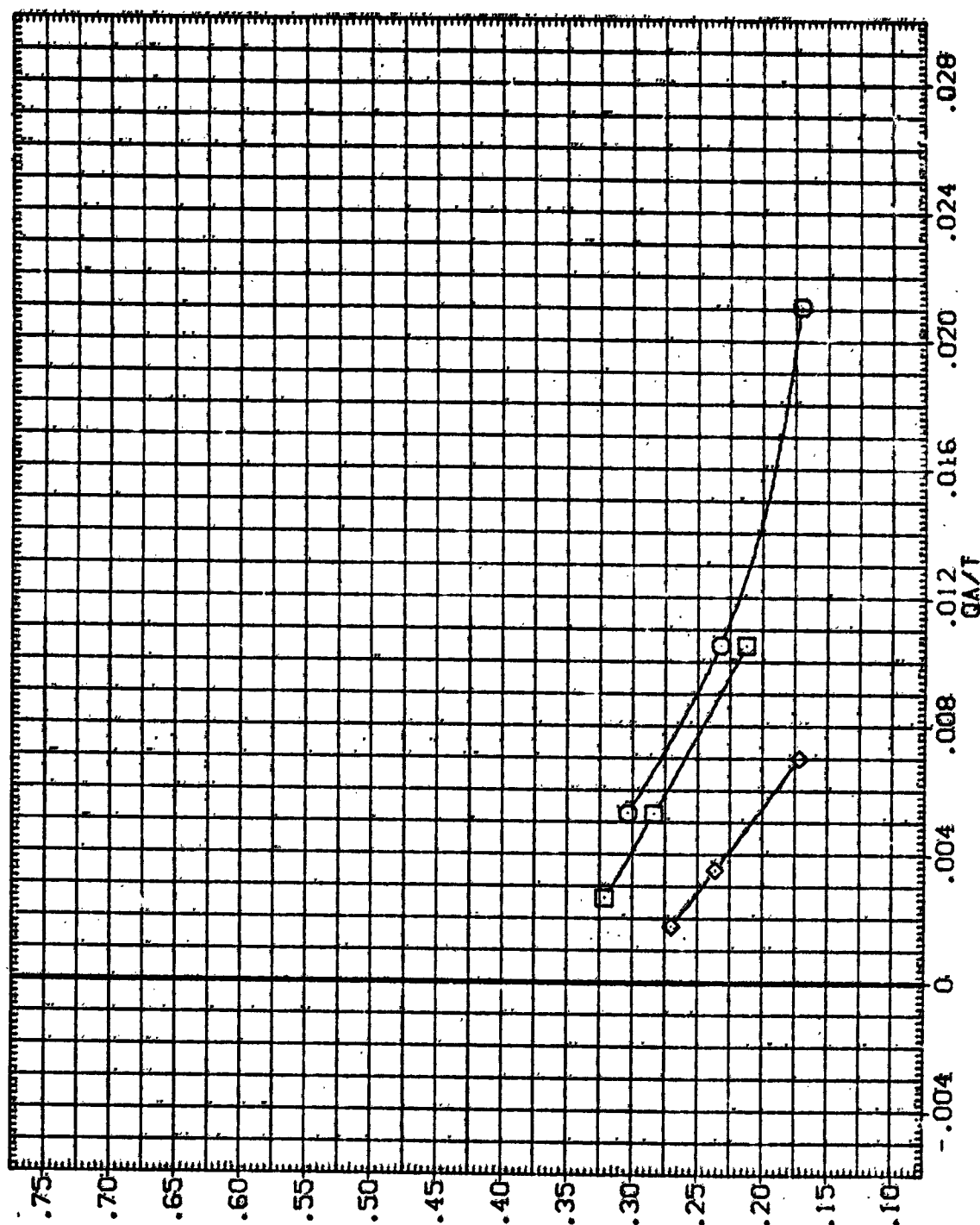


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

$$(C)ALPHA = -4.00$$

DATA SET SYMBOL: (SJA001)
 (SJA002)
 (SJA003)

CONFIGURATION DESCRIPTION:
 01N79 LARC CENT 118 (NA-22)
 01N49 LARC CENT 118 (NA-22)
 01N83 LARC CENT 118 (NA-22)

ELEVON: .000
 NO. JET: 1.000
 BOFLAP: .000
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

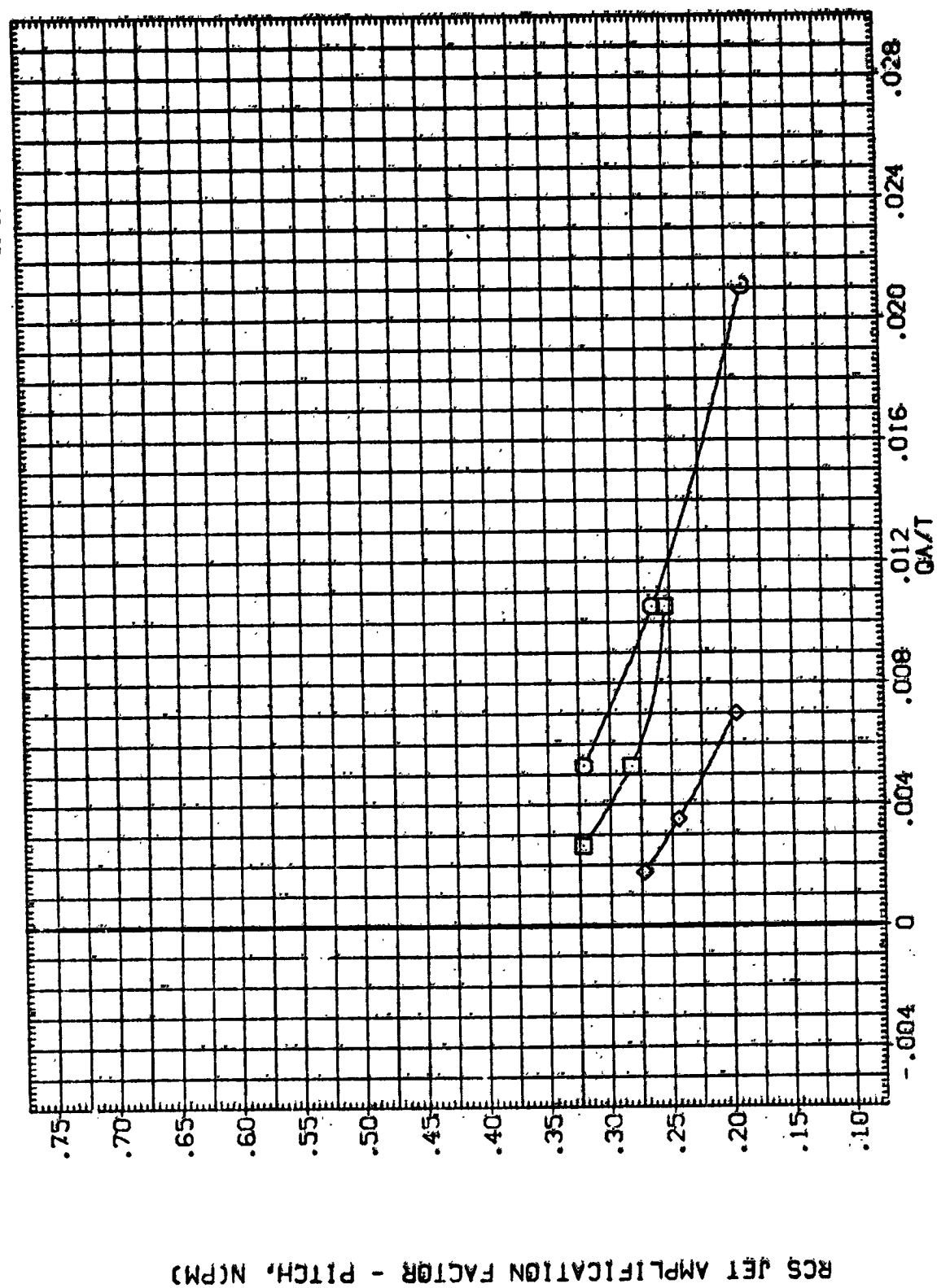


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(D) ALPHA = -2.00

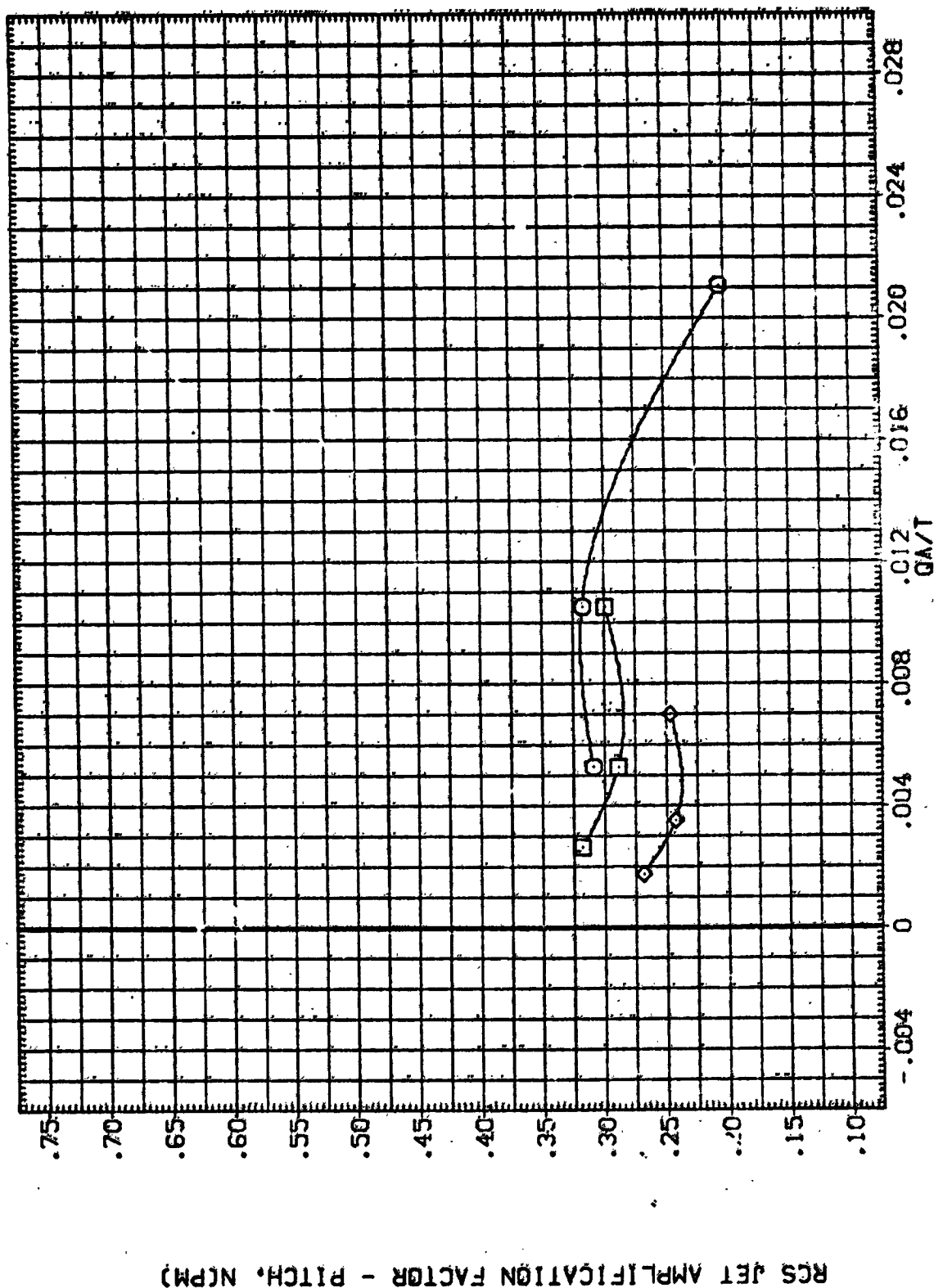


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(E)ALPHA = .00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) QIN79 LARC CHT 118 (NA-22)
 (SJA002) QIN49 LARC CHT 118 (NA-22)
 (SJA003) QIN83 LARC CHT 118 (NA-22)

ELEVON NO. JET BDFLAP BETA REFERENCE INFORMATION SQ. FT. INCHES
 .000 1.000 .000 SREF 2690.0000
 .000 2.000 .000 LREF 474.8000
 .000 3.000 .000 BREF 936.6800
 .000 .000 .000 XREF 1076.7000
 .000 .000 .000 YREF 375.0000
 .000 .000 .000 ZREF 375.0000
 .000 .000 .000 SCALE .0100

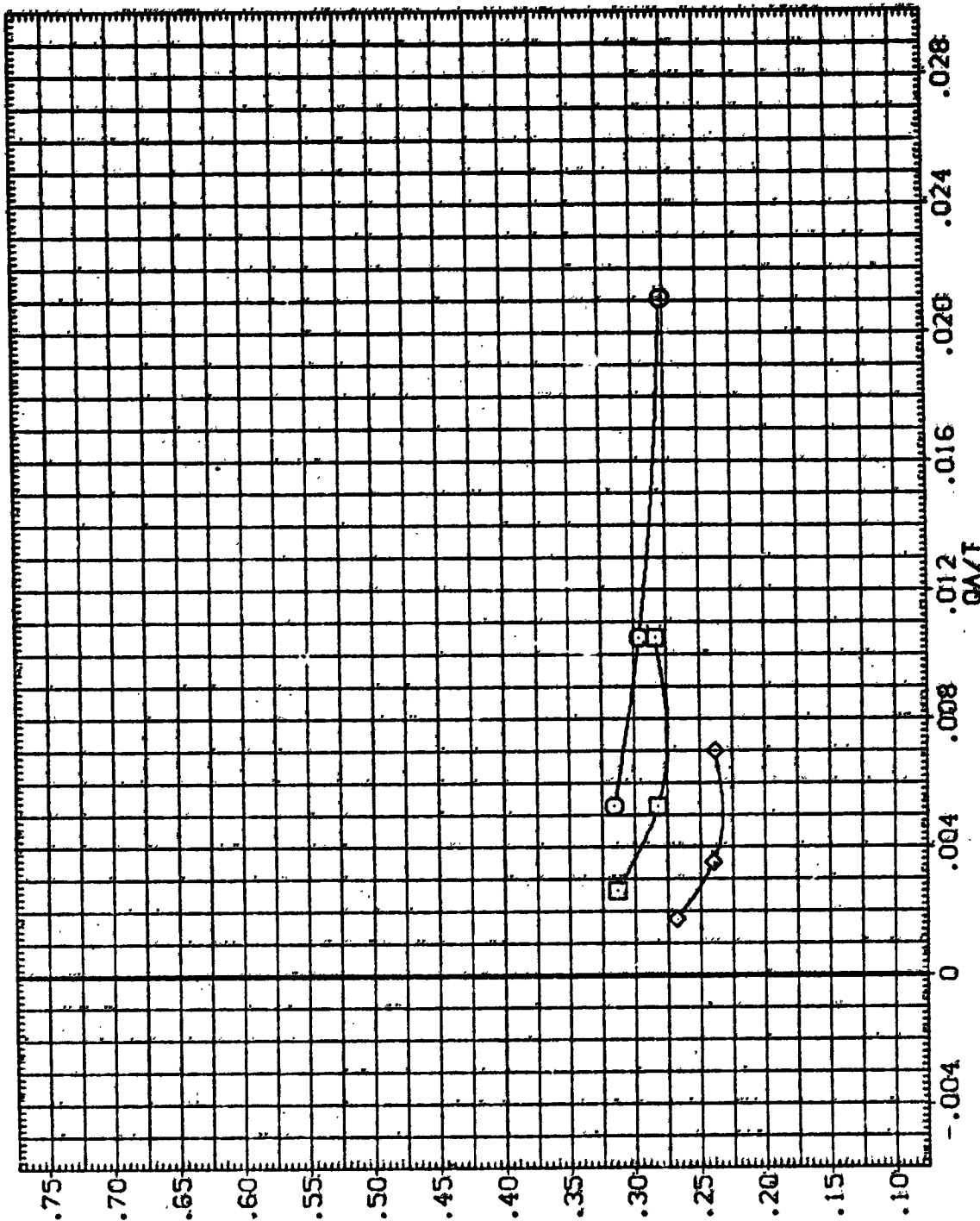


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(F)ALPHA = 2.00

DATA SET SYMBOL: (SJA001), (SJA002), (SJA003)

CONFIGURATION DESCRIPTION:
 QIN79 LARE CFH 118 (HA-22)
 QIN49 LARE CFH 118 (HA-22)
 QIN83 LARE CFH 118 (HA-22)

ELEVON NO. JET BOFLAP BETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SO.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 YMRP 1076.7000 IN. YB
 ZMRP 375.0000 IN. ZB
 SCALE .0100

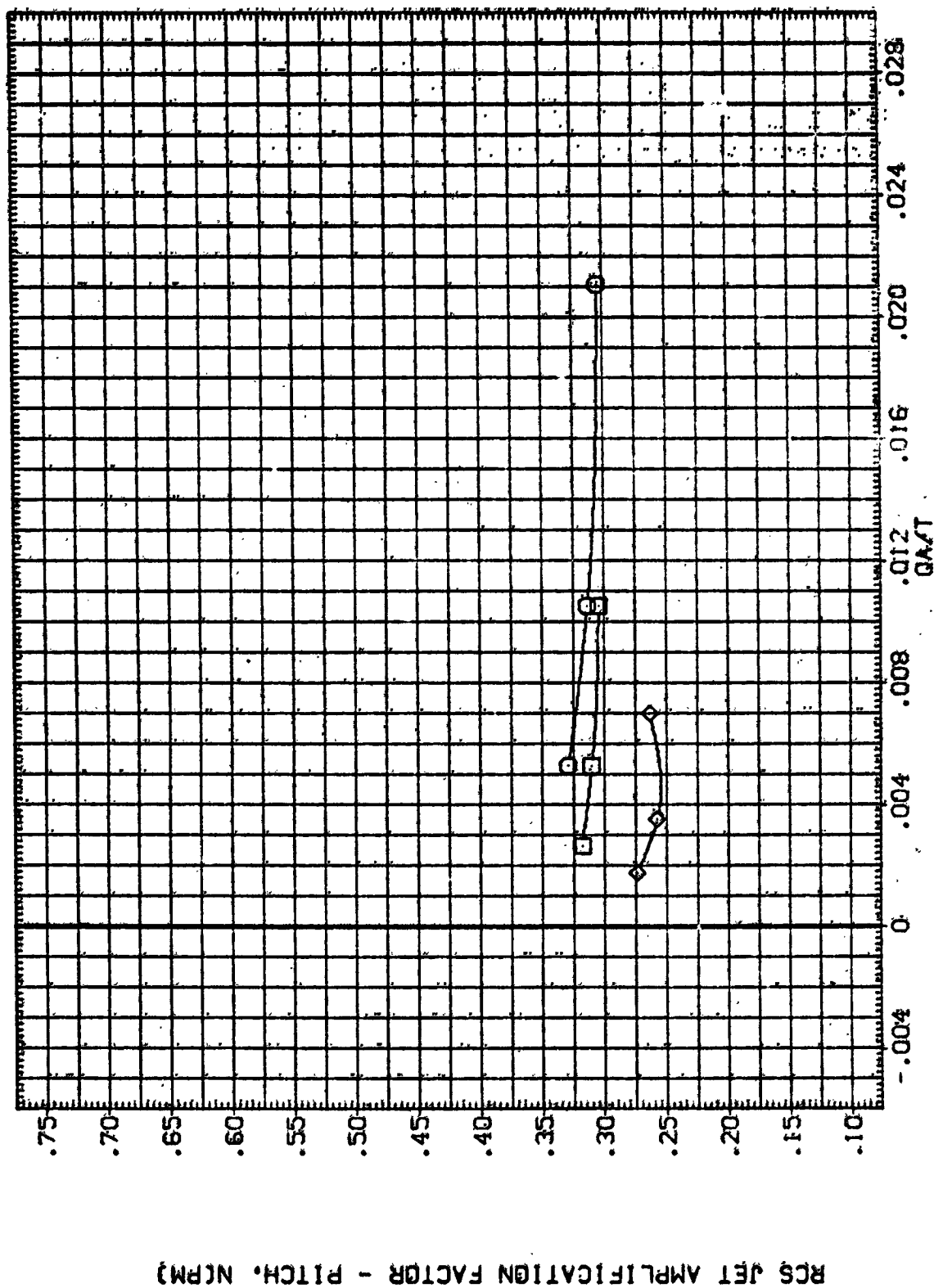


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79,N49,N83

(G)ALPHA = 4.00

DATA SET SYMBOL: 01N79, 01N49, 01N83
 (SJA001), (SJA002), (SJA003)
 LARC CPMT 118 (MA-22), LARC CPMT 118 (MA-22), LARC CPMT 118 (MA-22)

ELEVON: .000, .000, .000
 NO. JET: 1.000, 2.000, 3.000
 BDF LAP: .000, .000, .000
 BETA: .000, .000, .000

REFERENCE INFORMATION:
 SREF: 2590.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.5800 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

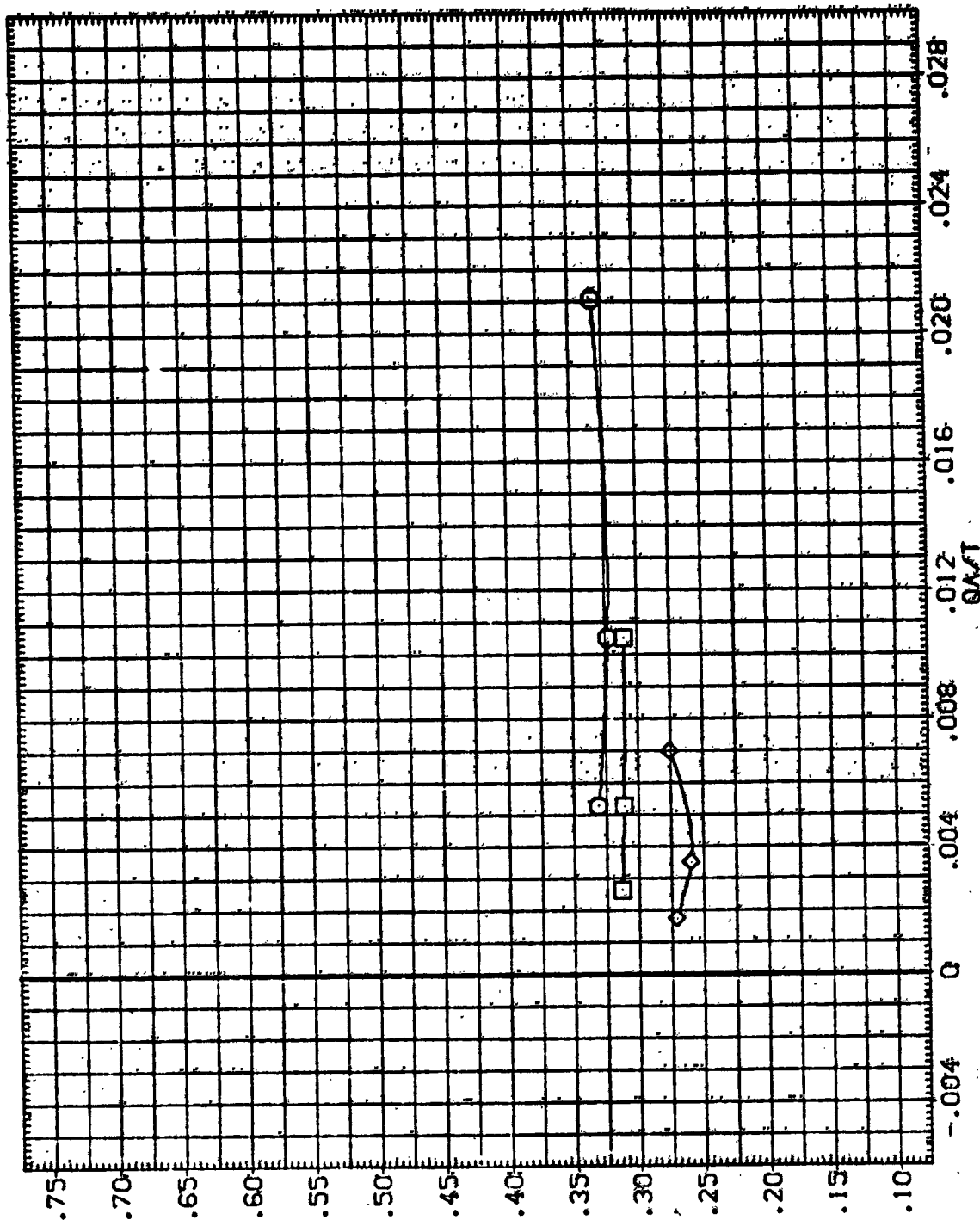


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(H)ALPHA = 6.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001)	QIN79 LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 SG.FT.
(SJA002)	QIN49 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA003)	QIN83 LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6000 INCHES
						XMRP 1076.2000 IN. X0
						YMRP .0000 IN. Y0
						ZMRP 375.0000 IN. Z0
						SCALE .0100

RCS JET AMPLIFICATION FACTOR - PITCH, NRM)

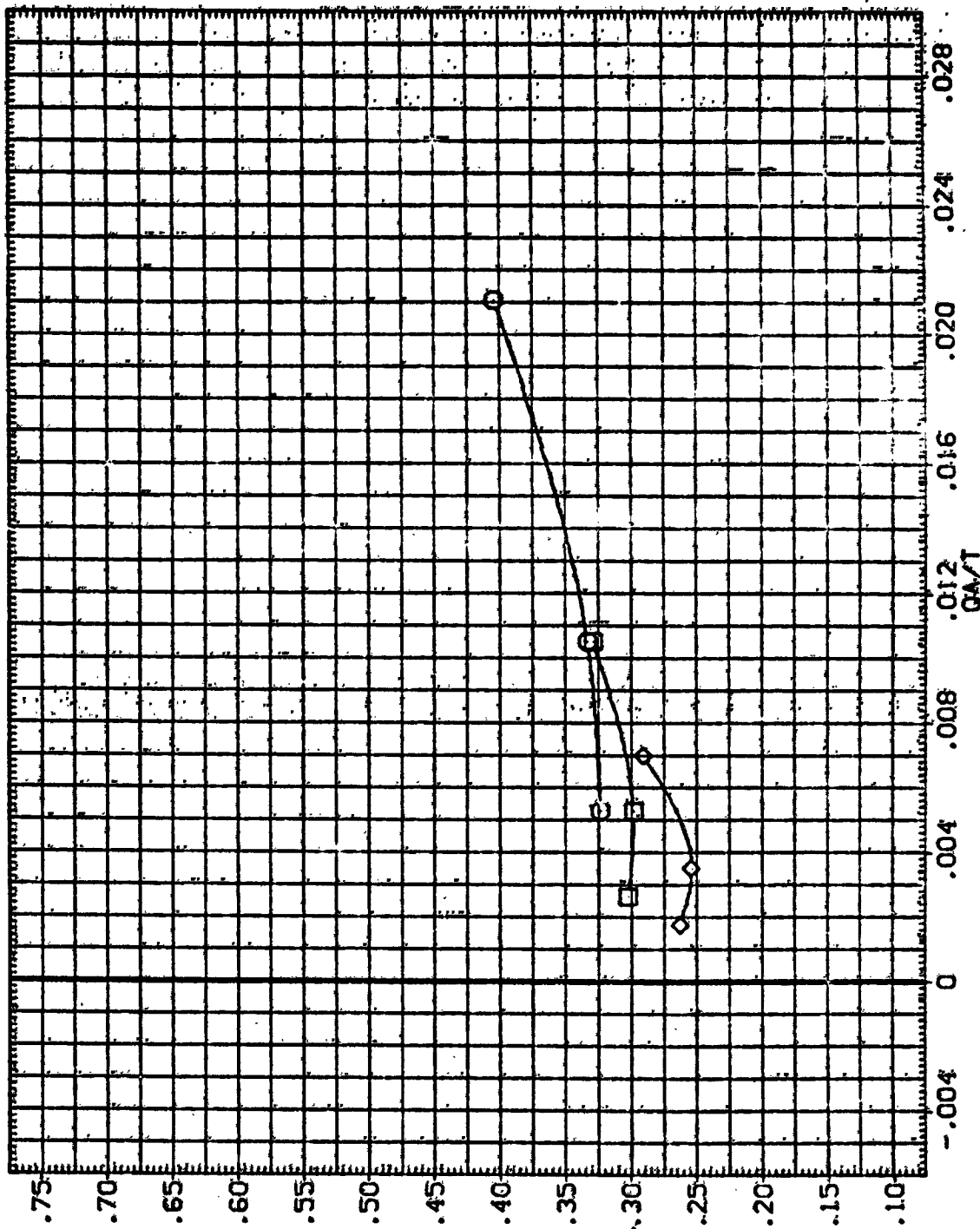


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79, N49, N83

(α) ALPHA = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001)	GIN79 LARC CFHT 118 (PA-22)	.000	1.000	.090	.000	SREF 2690.0000 IN. FT.
(SJA002)	GIN43 LARC CFHT 118 (PA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA003)	GIN83 LARC CFHT 118 (PA-22)	.800	3.000	.000	.000	BREF 936.6800 INCHES
						VRBP 1076.7000 IN. 10
						VRBP .0000 IN. 10
						ZRBP 375.0000 IN. 20
						SCALE .0100

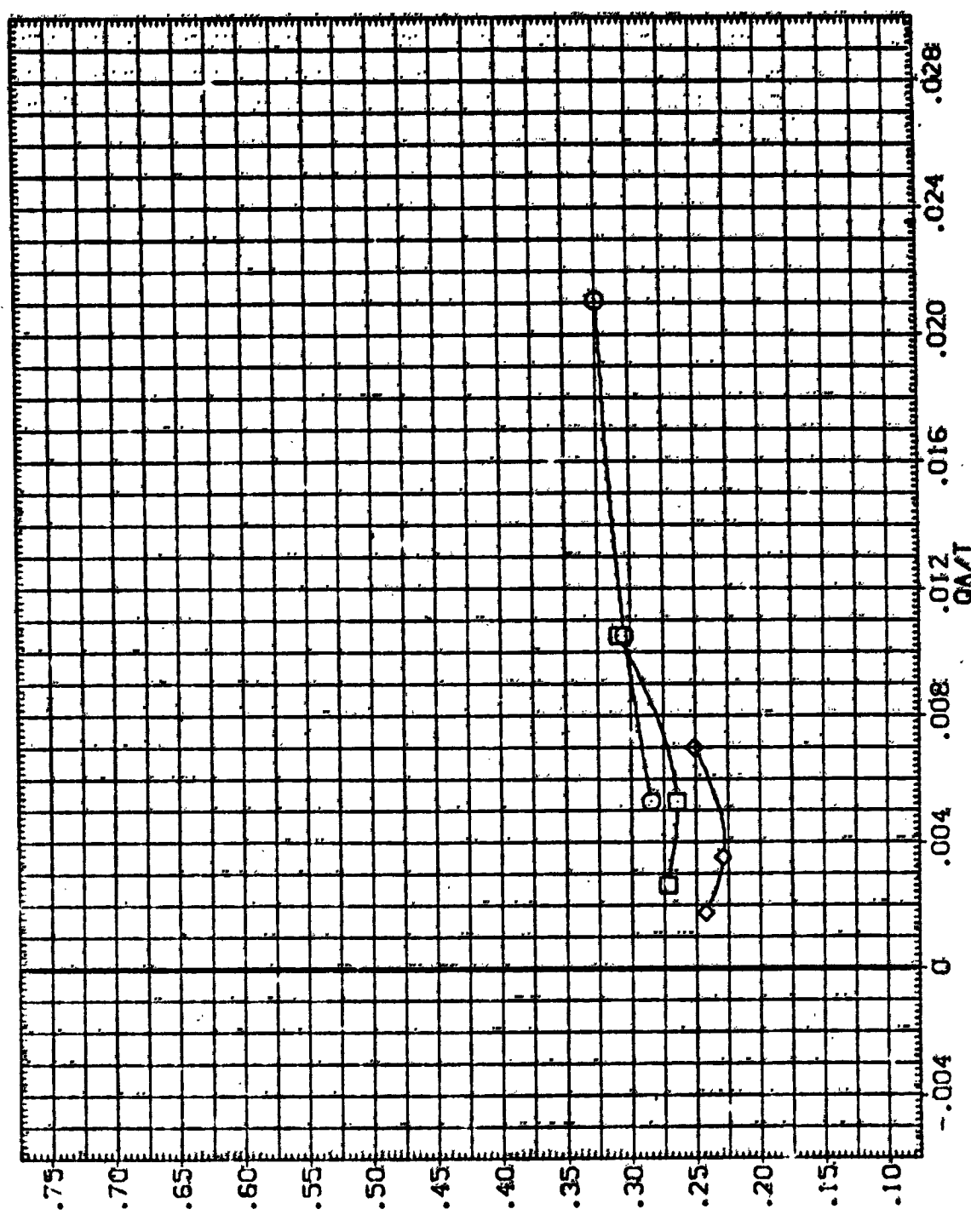


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79.N49.N83

CJALPHA = 10.00

ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION	50 FT. INCHES	50 FT. INCHES
.000	1.000	.000	.000	SREF	2630.0000	50.0000
.000	2.000	.000	.000	LREF	474.8000	9.5800
.000	3.600	.000	.000	BREF	9.38.5800	1076.7000
.000				XREF	1076.7000	1076.7000
				YREF	.0000	IN. YD
				ZREF	375.0000	IN. ZD
				SCALE	.0100	

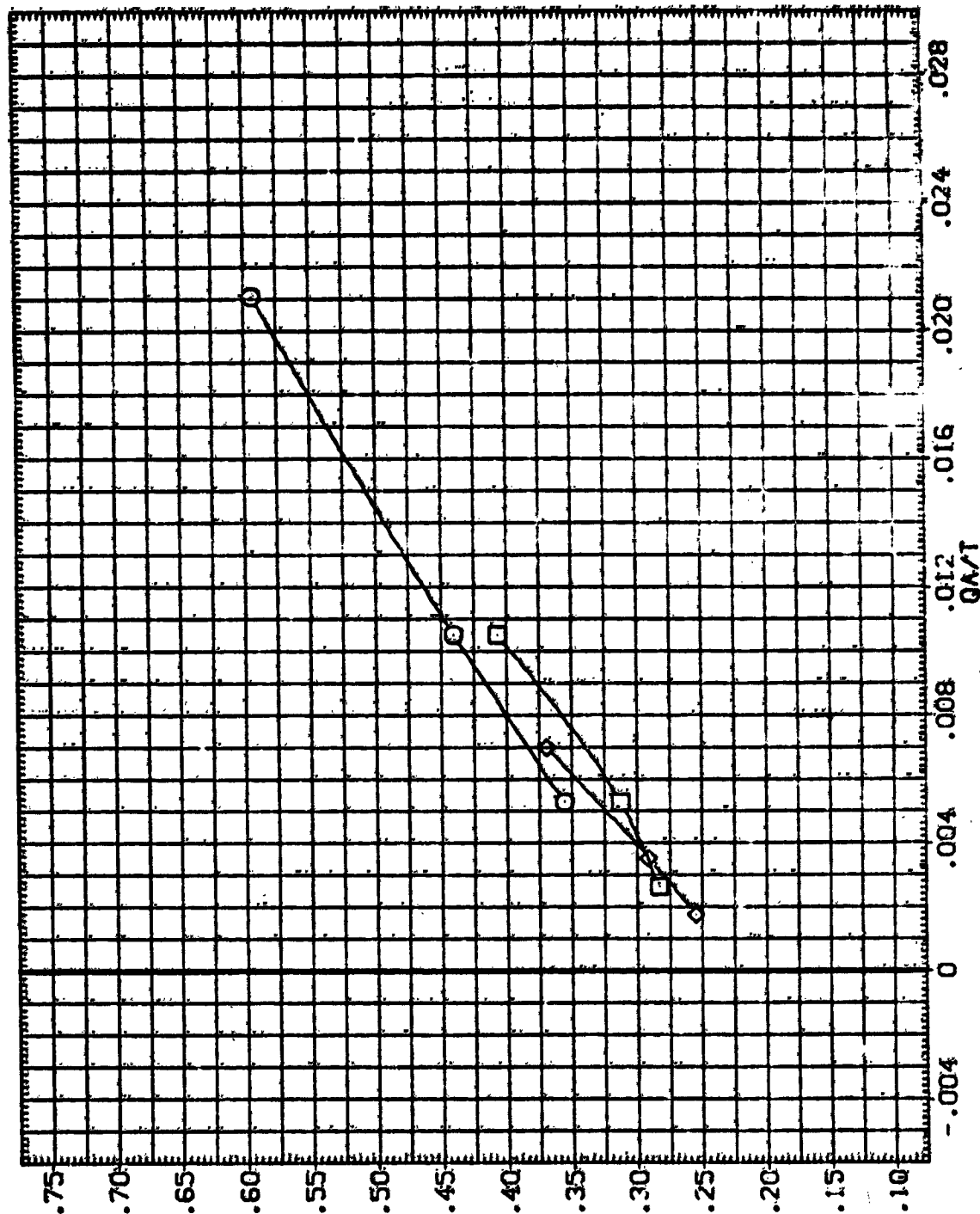


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.N49.1033

(K)ALPHA = 15.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOLAP	BETA	REFERENCE INFORMATION
(S10001)	Q1A25	.000	1.000	.000	.000	SREP 2650.0000 SD FT.
(S10002)	Q1A49	.000	2.000	.000	.000	LREF 474.8000 INCHES
(S10003)	Q1A81	.000	3.000	.000	.000	EREF 936.6500 INCHES
						KREF 1076.7000 IN. X
						YREF .0000 IN. Y
						ZREF 375.0000 IN. Z
						SCALE .0100

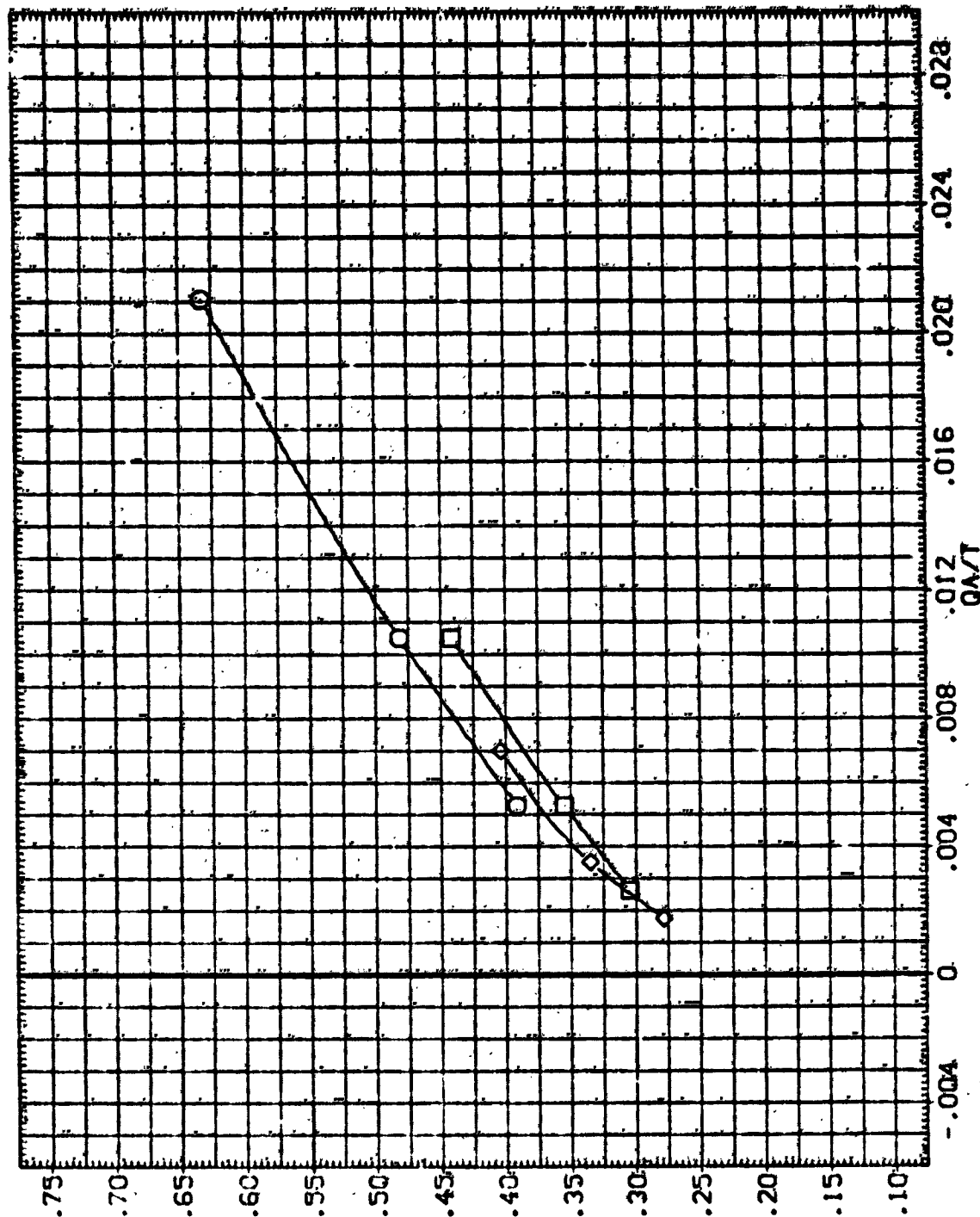


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.N49.N83

(L)ALPHA = 20.00

DATA SET SYMBOL
 (SJA001)
 (SJA002)
 (SJA003)

CONFIGURATION DESCRIPTION
 Q1N79 LARC CFHT 118 (MA-22)
 Q1N43 LARC CFHT 118 (MA-22)
 Q1N83 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BEPA
 .000 .000 .000
 .000 .000 .000
 .000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LAREF 474.8000 INCHES
 BREF 936.6800 INCHES
 YREF 1076.7000 IN. TO
 ZREF 375.0000 IN. TO
 SCALE .0100

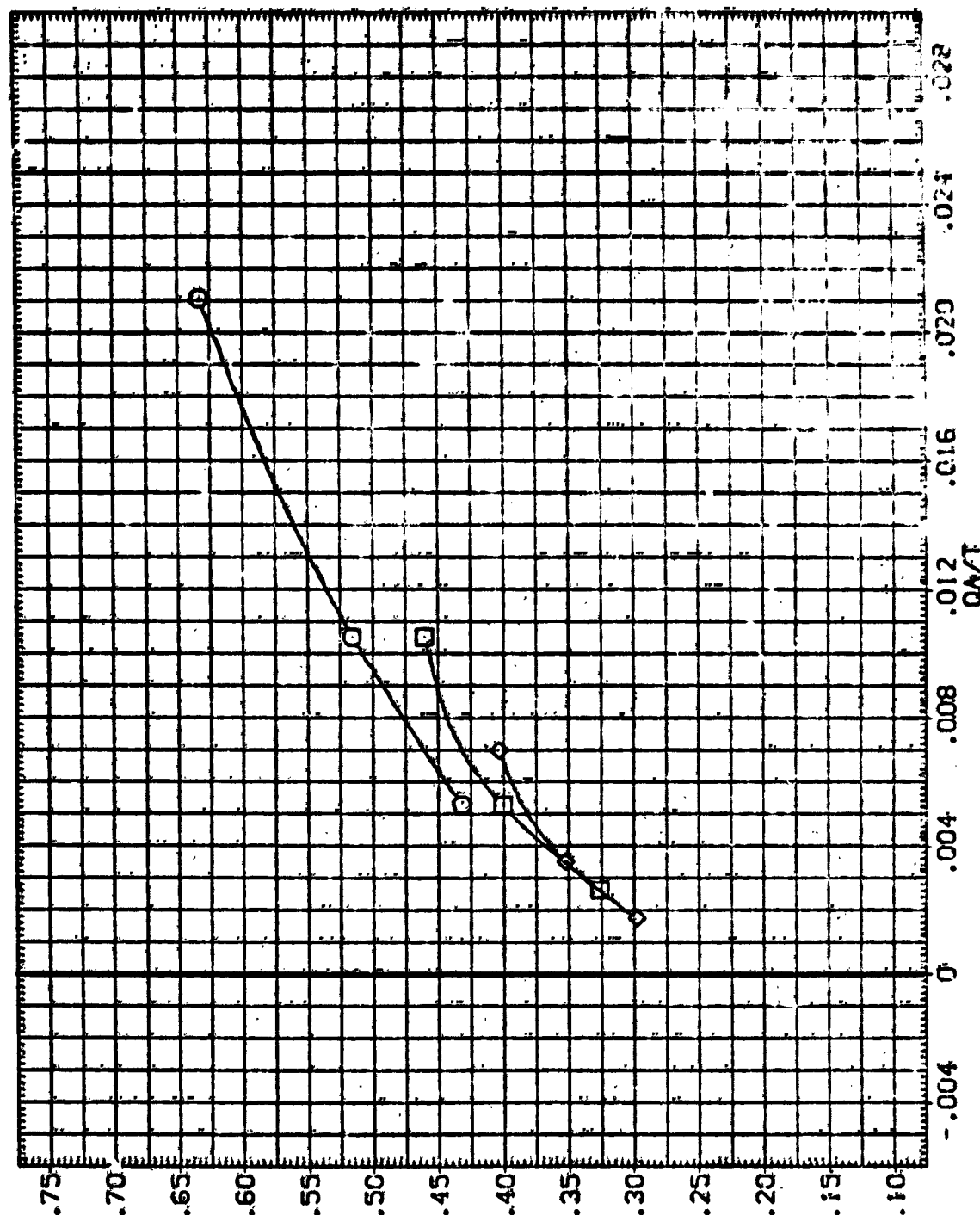


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

(M)ALPHA = 25.00

DATA SET SYMBOL: 01N79 01N49 01N83
 (50-004) (50-002) (50-003)
 CONFIGURATION DESCRIPTION:
 LARC CFHT 118 (MA-22)
 LARC CFHT 118 (MA-23)
 LARC CFHT 118 (MA-23)

ELEVON NO. JET BOFLAP BETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 INCHES
 LREF 474.8000 INCHES
 BREF 536.6800 INCHES
 YREF 1076.7000 INCHES
 ZREF 375.0000 INCHES
 SCALE .0100

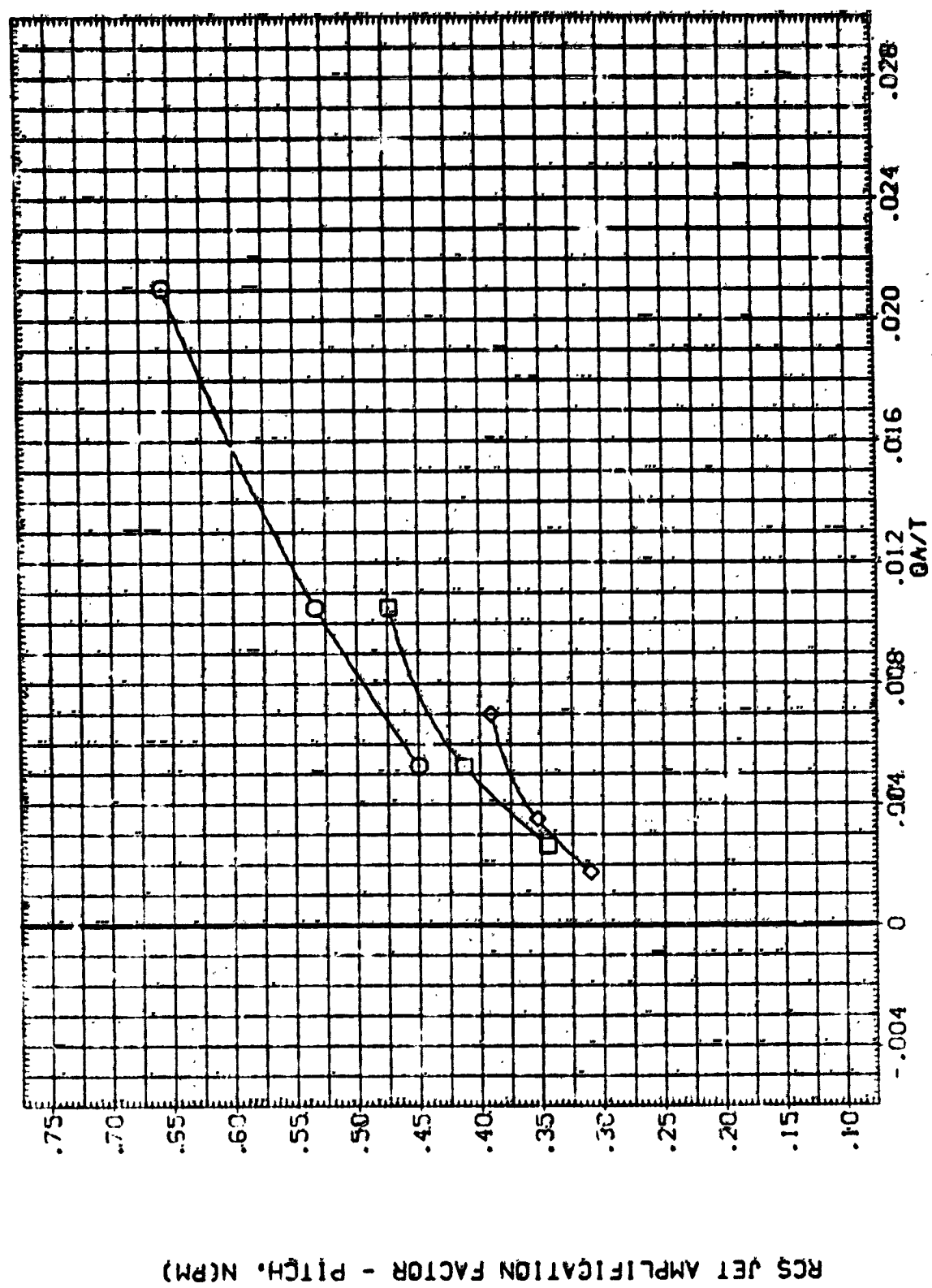


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79,N49,N83

(N)ALPHA = 30.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001)	QUV9 LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 SO.FT.
(SJA002)	QUV9 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA003)	QUV9 LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.5800 INCHES
						XMRP 1076.7000 IN. X0
						YMRP .0000 IN. Y0
						ZMRP 375.8000 IN. Z0
						SCALE .0100

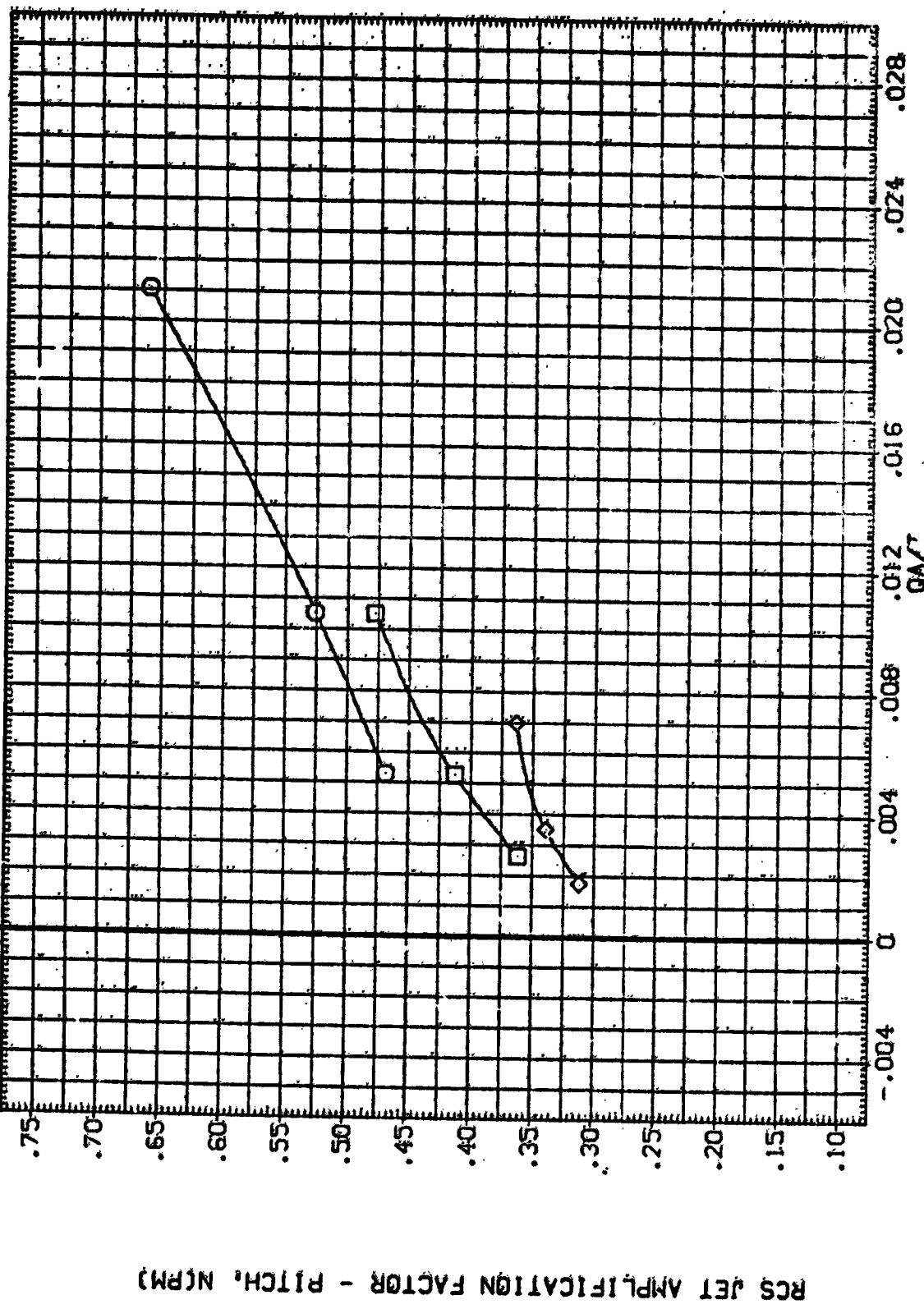
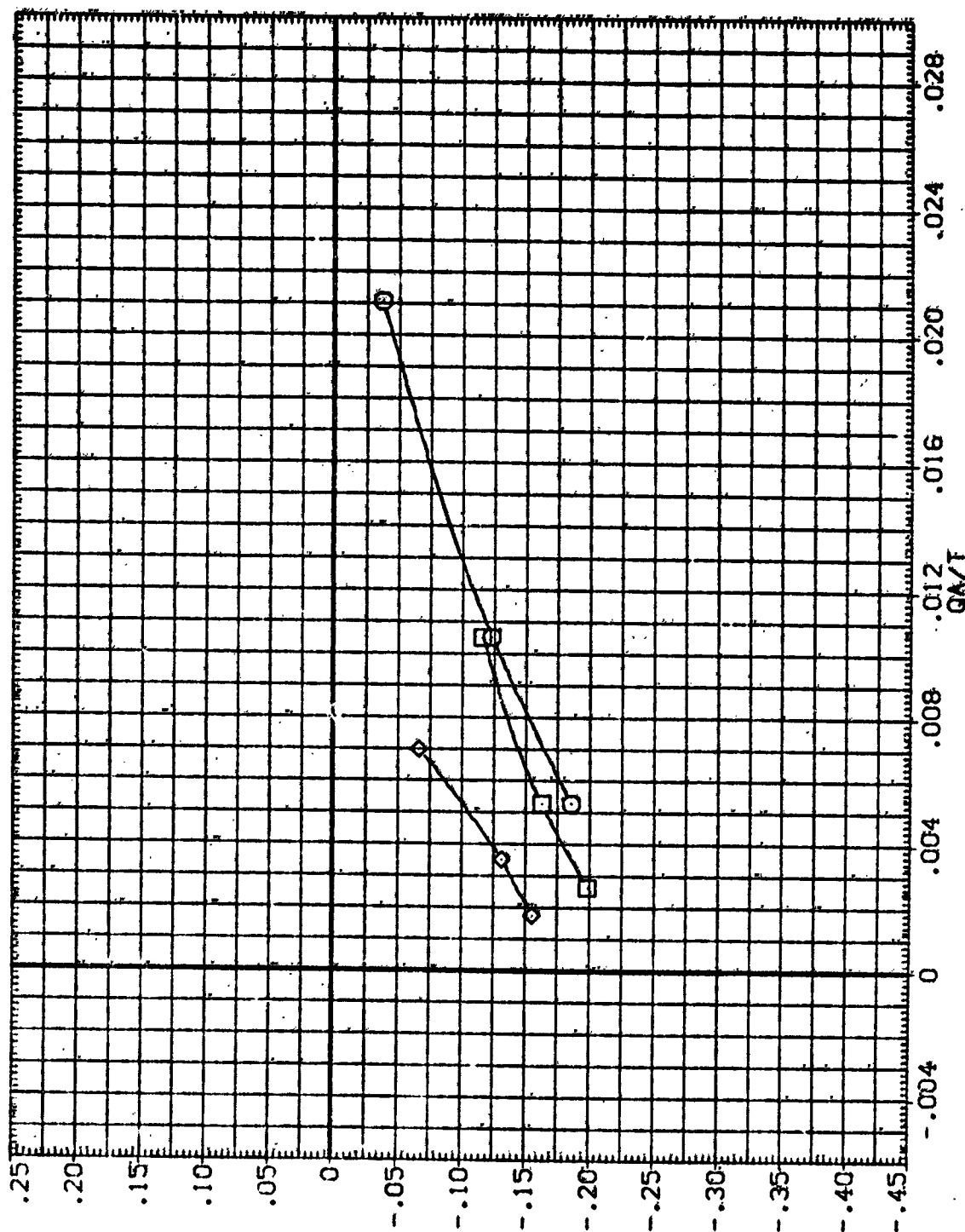


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79, N49, N83

(O) ALPHA = 35.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001)	01179 LARC CPHT 118 (HA-22)	.000	1.000	.000	.008	SREF 2690.0000 SO.FT.
(SJA002)	01149 LARC CPHT 118 (HA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA003)	01183 LARC CPHT 118 (HA-22)	.000	3.000	.000	.000	BREF 936.6800 INCHES
						XMRP 1076.7000 IN. X0
						YMRP .0000 IN. Y0
						ZMRP 373.0000 IN. Z0
						SCALE .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, N(AF)

FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

(A) ALPHA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001)	QIN29 LARC CFHT 118 (MA-22)	.000	1.000	.060	.000	SREF 2690.0000 SO.FT.
(SJA002)	QIN45 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA003)	QIN83 LARC CFHT 118 (MA-22)	.060	3.000	.000	.000	BREF 936.6800 INCHES
						XMRP 1076.7000 IN. X
						YMRP .0000 IN. Y
						ZMRP 375.0000 IN. Z
						SCALE .0160

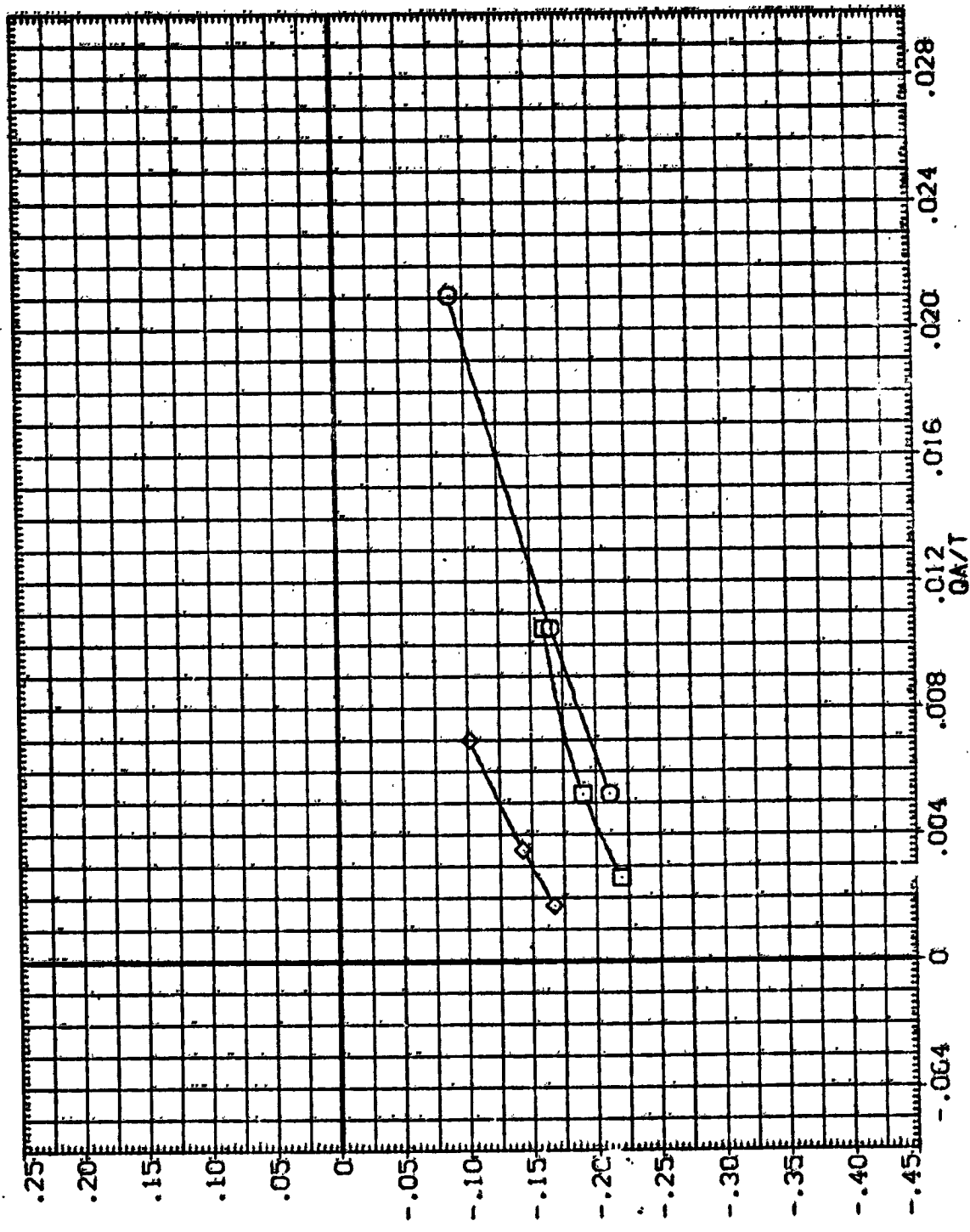


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

(B) ALPHA = -6.00

DATA SET SYMBOL
 (SJA001)
 (SJA002)
 (SJA003)

CONFIGURATION DESCRIPTION
 GIN79 LARC CFHT 118 (NA-22)
 GIN49 LARC CFHT 118 (NA-22)
 GIN83 LARC CFHT 118 (NA-22)

ELEVON
 .000
 .000
 .000

NO. JET
 1.000
 2.000
 3.000

BDFLAP
 .000
 .000
 .000

BETA
 .000
 .000
 .000

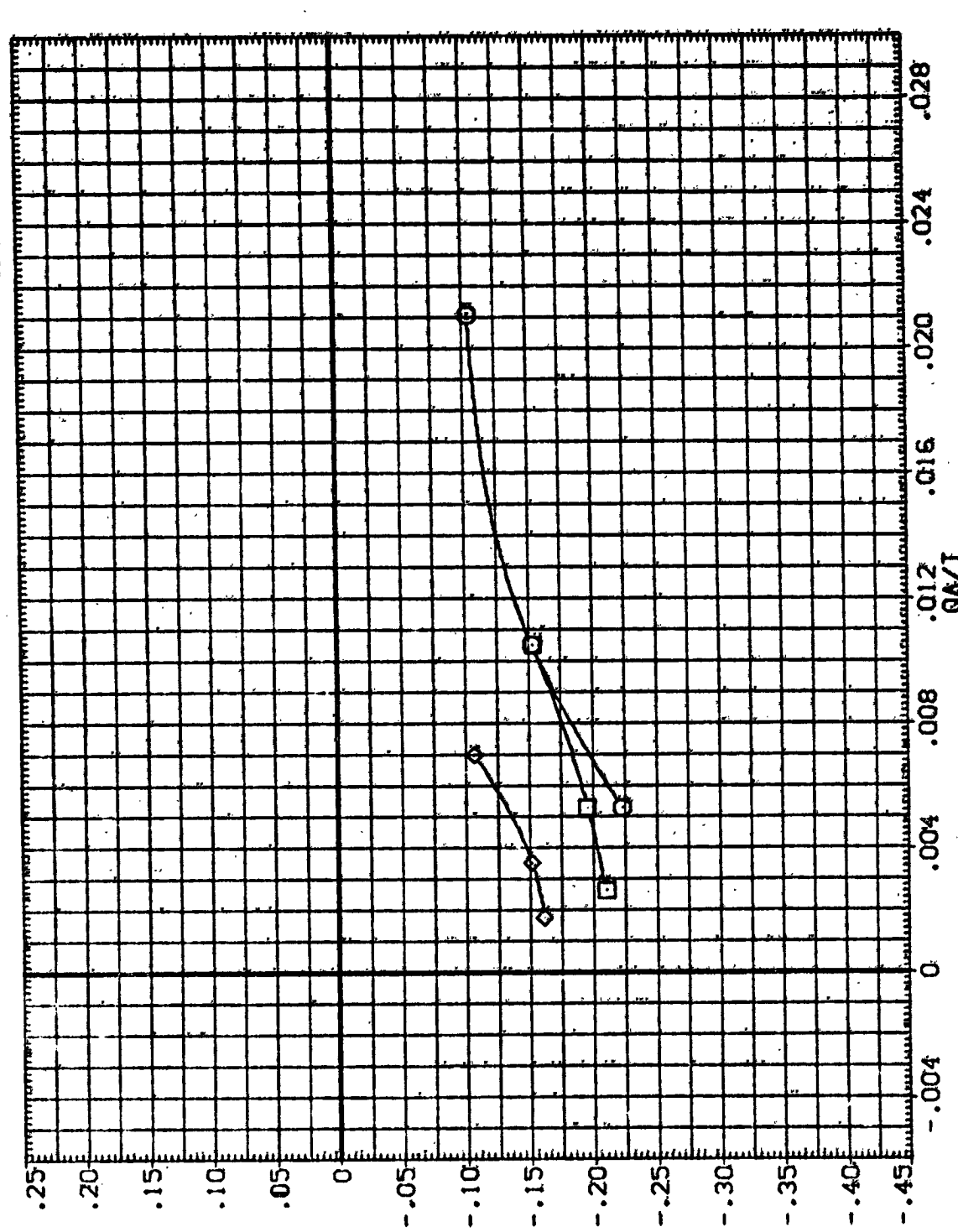


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83
 (C) ALPHA = -4.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BORLAP	BETA	REFERENCE INFORMATION
(SJ0001)	Q1N79 LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 SO. FT.
(SJ0002)	Q1N83 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.3000 INCHES
(SJ0003)	Q1N83 LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	BREF 926.6800 INCHES
						YMRP 1076.7000 IN. 10
						ZMRP .0000 IN. 10
						SCALE 375.0000 IN. 20

RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, (NCF)

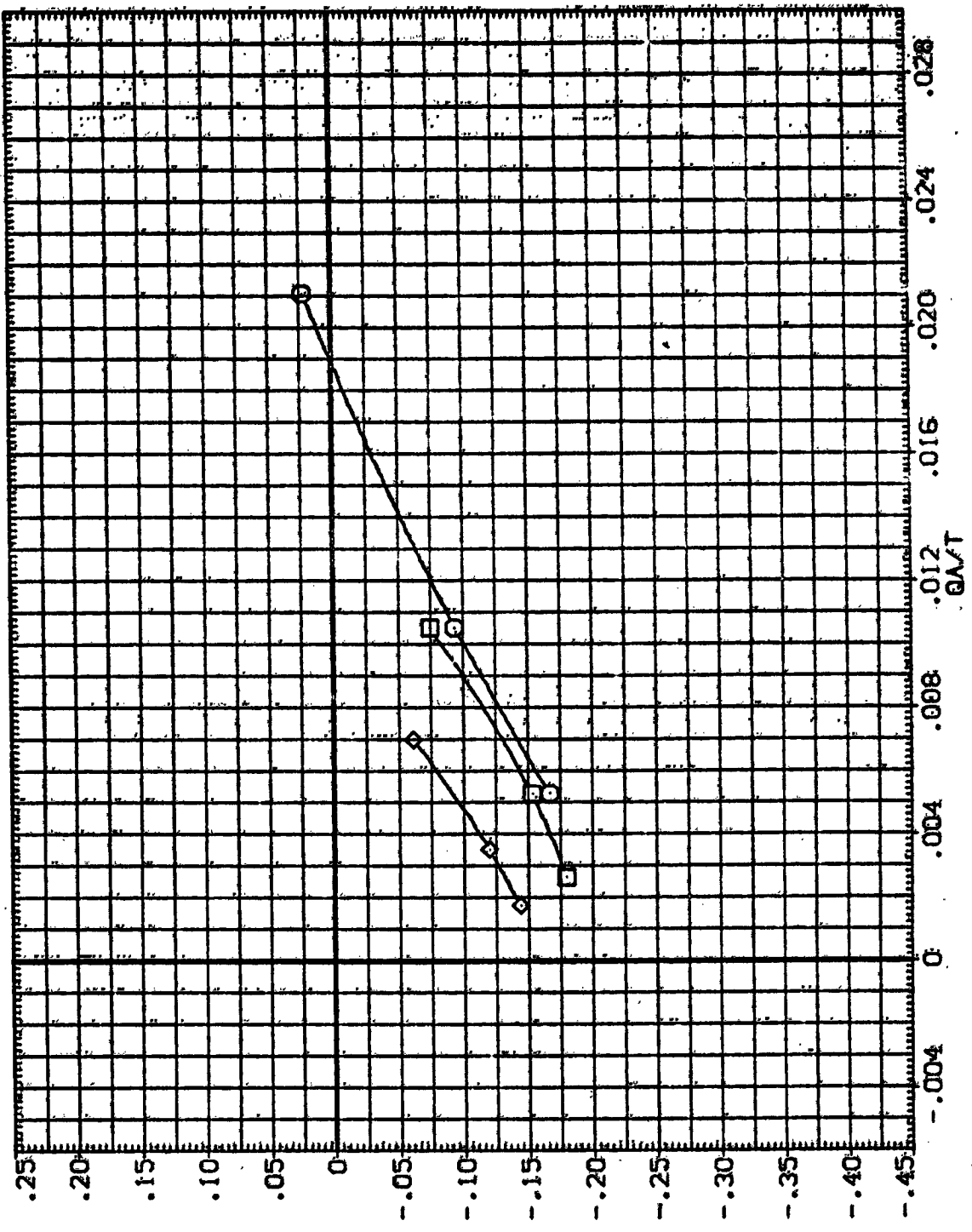


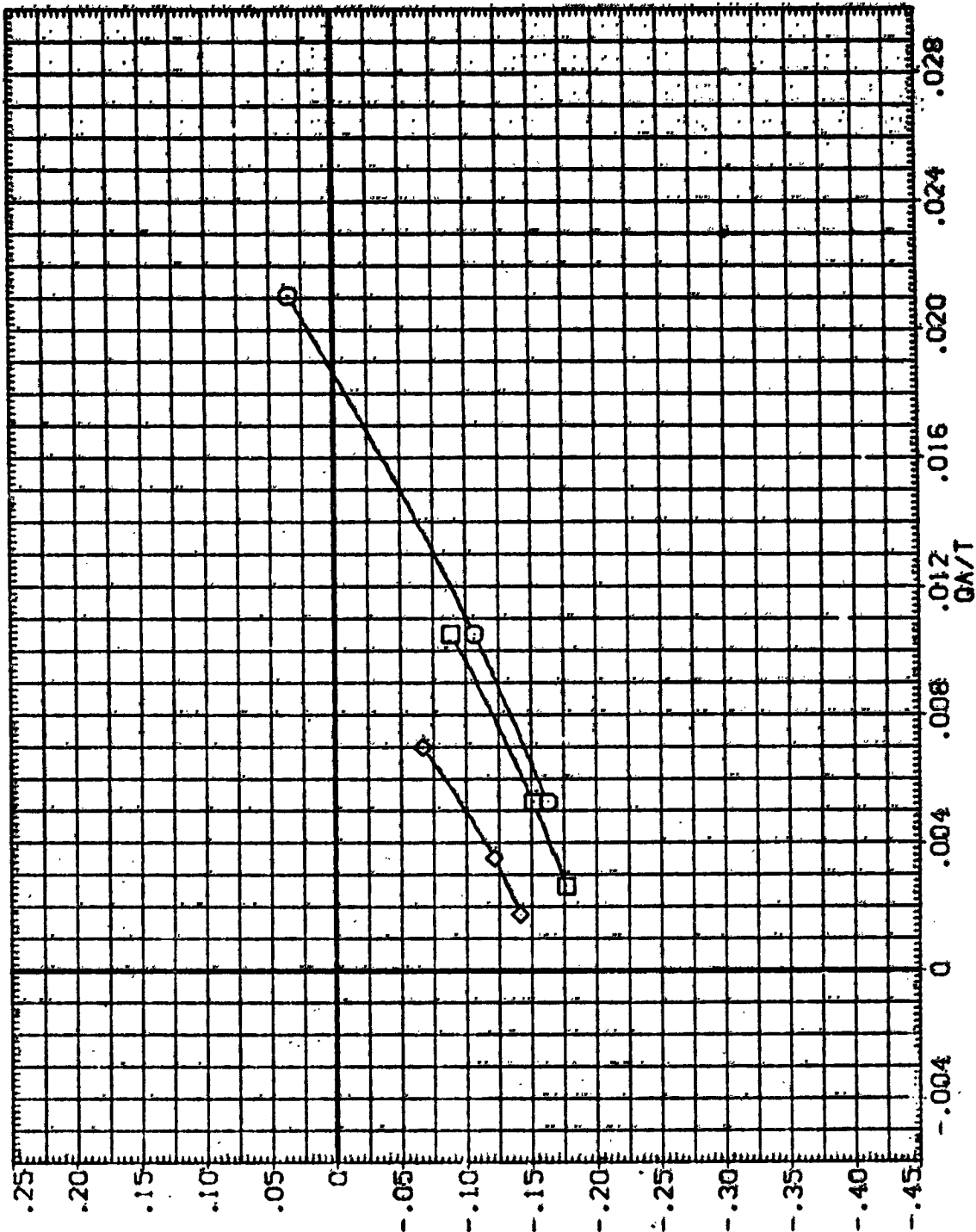
FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79.N49.N83

(D) ALPHA = -2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) 01N79 LARC CFMT 118 (HA-22)
 (SJA002) 01N43 LARC CFMT 118 (HA-22)
 (SJA003) 01N83 LARC CFMT 118 (HA-22)

ELEVON NO. JET BOFLAP BETA
 .000 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, N(AF)

FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(E) ALPHA = .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001) 1	LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 50. FT.
(SJA002) 1	LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA003) 1	LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6800 INCHES
						XMRP 1076.7000 IN. RD.
						YMRP .0000 IN. YD.
						ZMRP 375.0000 IN. ZD.
						SCALE .0100

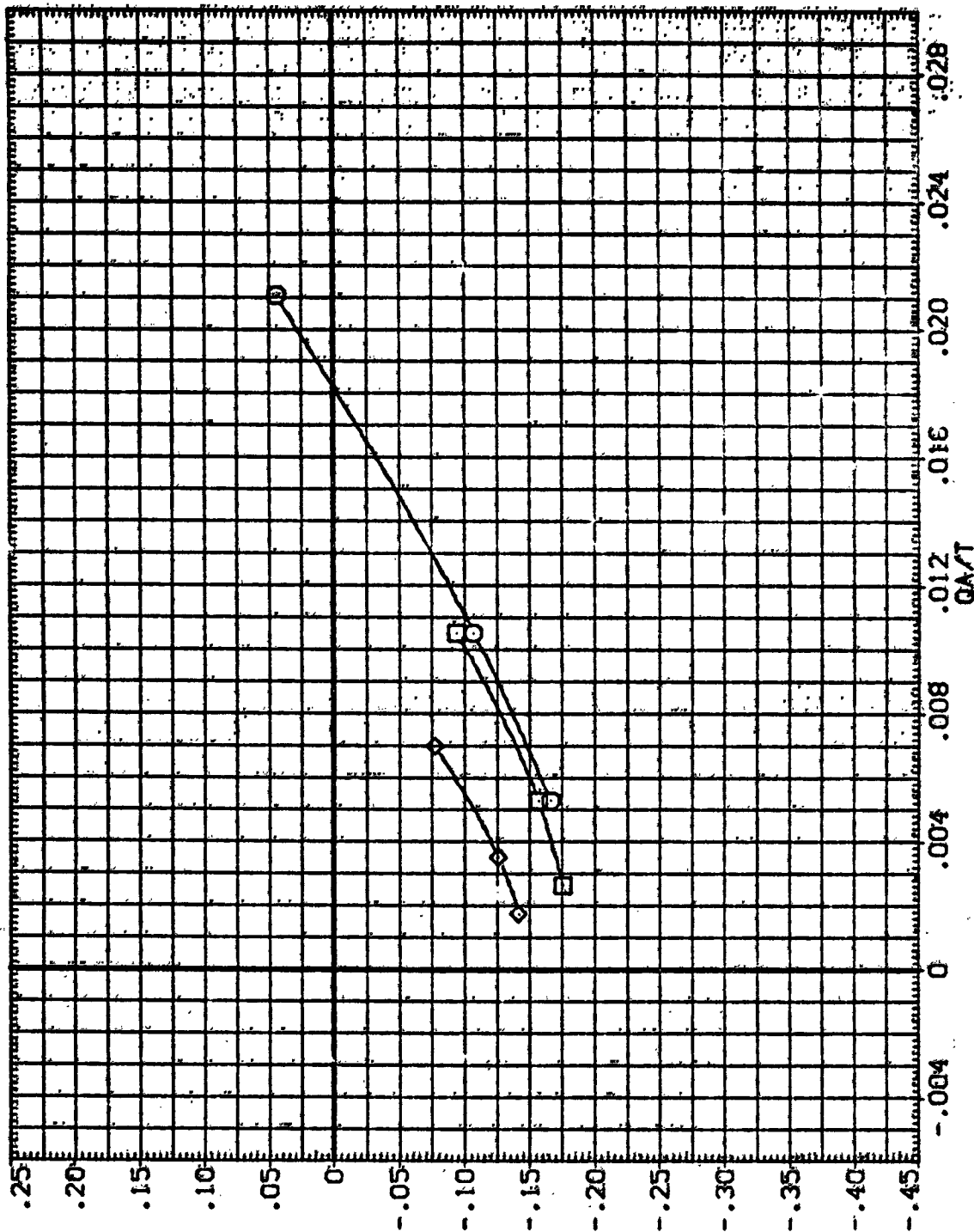


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

(F)ALPHA = 2.00

DATA SET SYMBOL
 (SJAD001)
 (SJAD002)
 (SJAD003)

CONFIGURATION DESCRIPTION
 LARC CFHT 118 (MA-22)
 LARC CFHT 118 (MA-22)
 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOP LAP BETA
 .000 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

REFERENCE INFORMATION
 SREF 7690.0000 50.00
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XTRAP 1076.7000 IN. 20
 YTRAP .0000 IN. 20
 ZTRAP 375.0000 IN. 20
 SCALE .0100

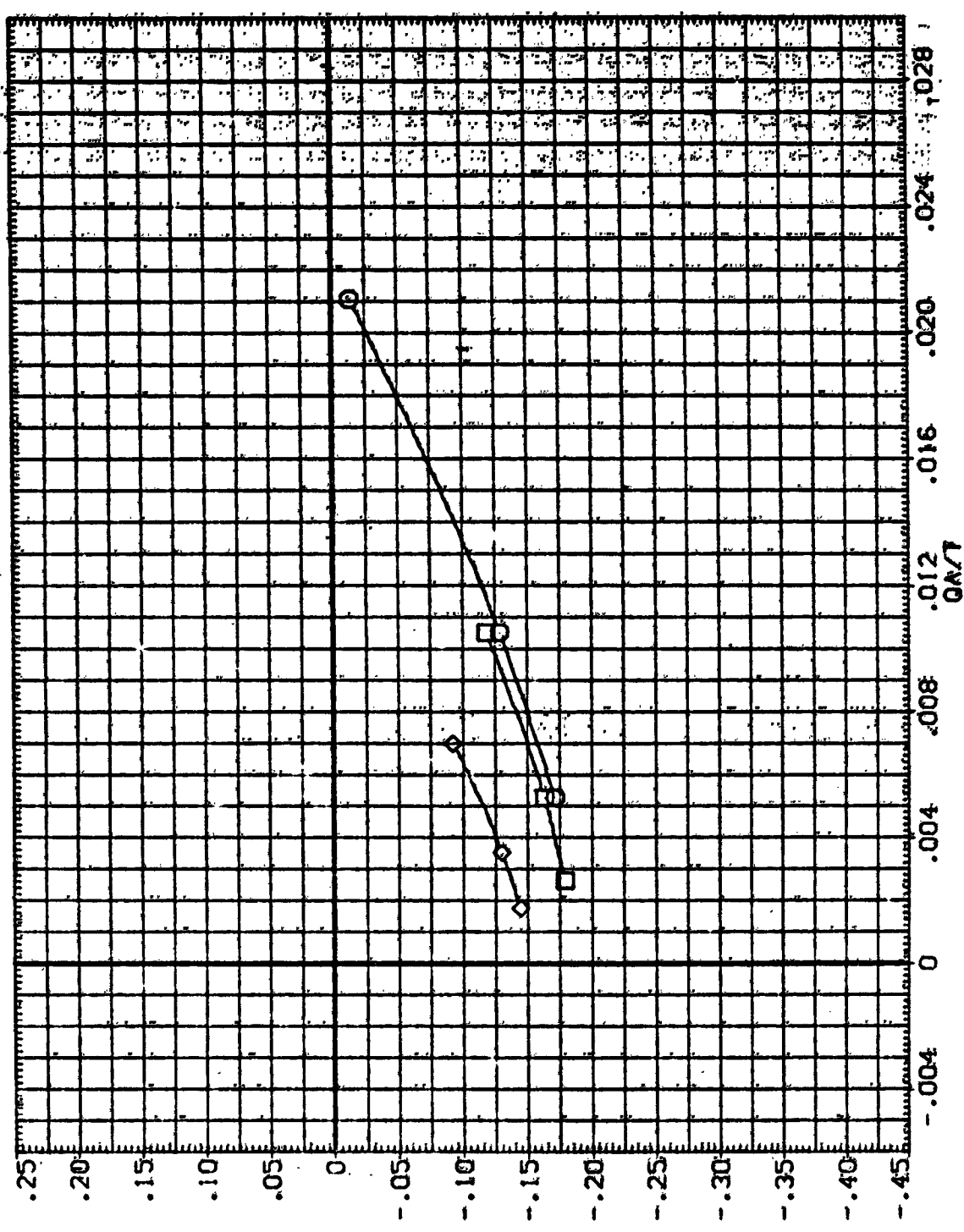


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.N49.N83

(G)ALPHA = 4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) 1 QIM79 LARC CFHT 118 (MA-22)
 (SJA002) 1 QIM49 LARC CFHT 118 (MA-22)
 (SJA003) 1 QIM83 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOF LAP BETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.8800 INCHES
 XRRP 1076.7000 IN. X0
 YRRP 973.0000 IN. Y0
 SCALE .0100

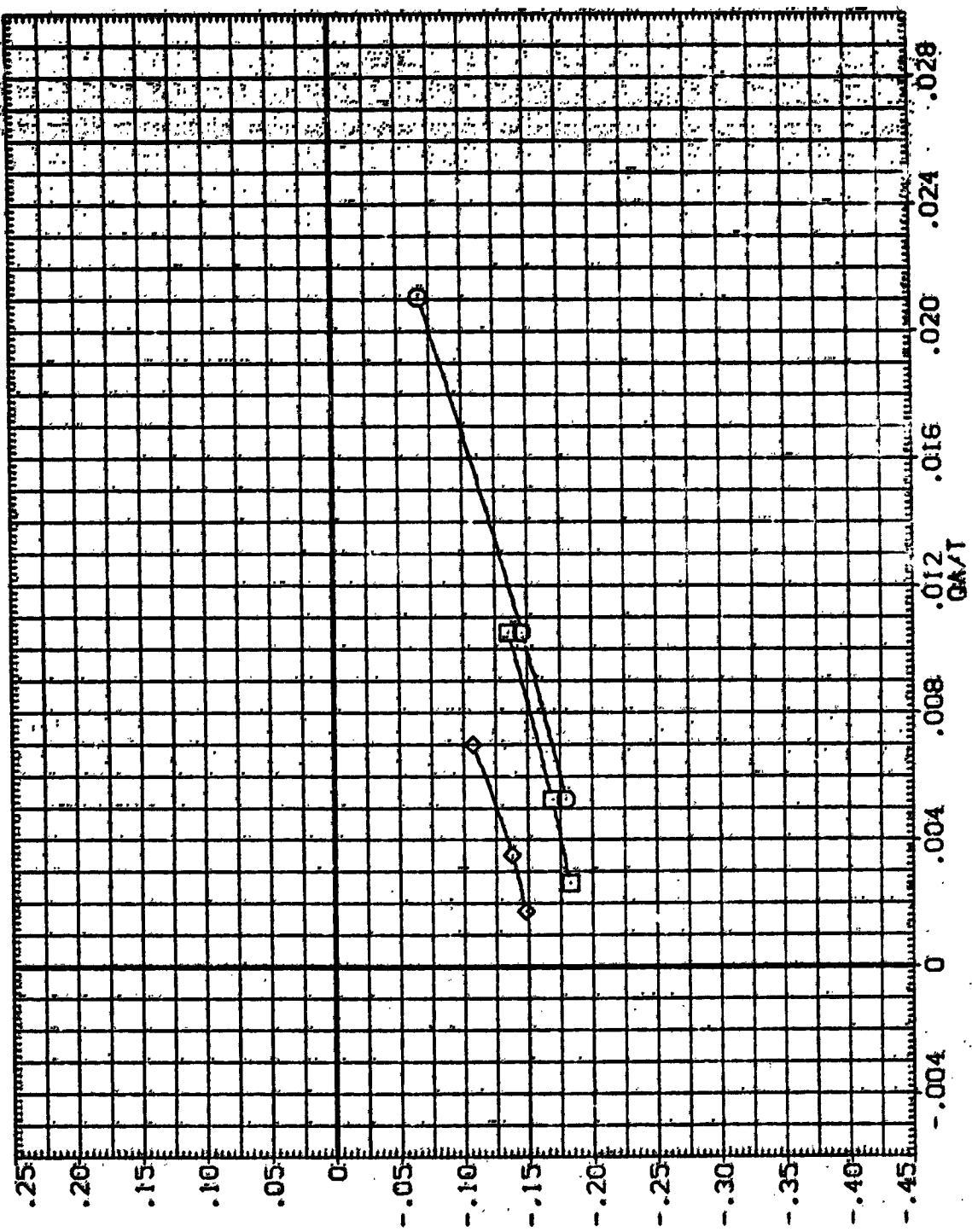


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79,N49,N83

(H)ALPHA = 6.00

DATA SET SYMBOL
(SJA001)
(SJA002)
(SJA003)

CONFIGURATION DESCRIPTION
Q1N79 LARC CFHT 118 (MA-22)
Q5N49 LARC CFHT 118 (MA-22)
Q1N83 LARC CFHT 118 (MA-32)

ELEVON
.000
.000
.000

NO. JET
1.000
2.000
3.000

BOFLAP
.000
.000
.000

BETA
.000
.000
.000

REFERENCE INFORMATION
SREF 2690.000 50. FT.
LREF 474.800 INCHES
BREF 936.680 INCHES
XMRP 1076.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100

RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, N(AF)

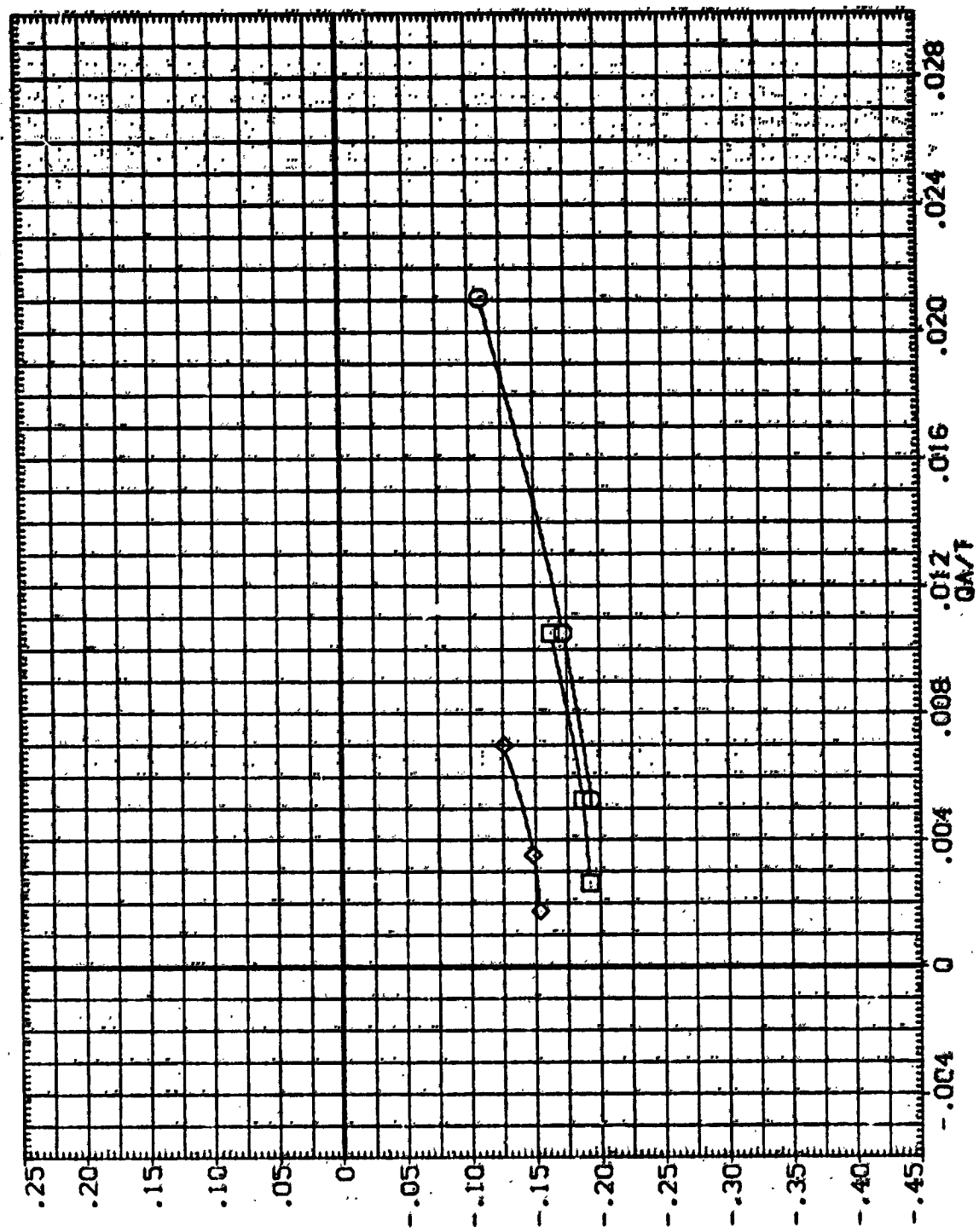


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.N49.N83

(1) ALPHA = 8.00

DATA SET SYMBOL: 81N79, 81N49, 81N83
 CONFIGURATION DESCRIPTION: LARC CFHT 118 (NA-22)
 REFERENCE INFORMATION: SREF, LREF, BREF, XREF, YREF, ZREF, SCALE

FLEVEN: .000, .000, .000
 NO. JET: 1.000, 2.000, 3.000
 BDFLAP: .000, .000, .000
 BETA: .000, .000, .000

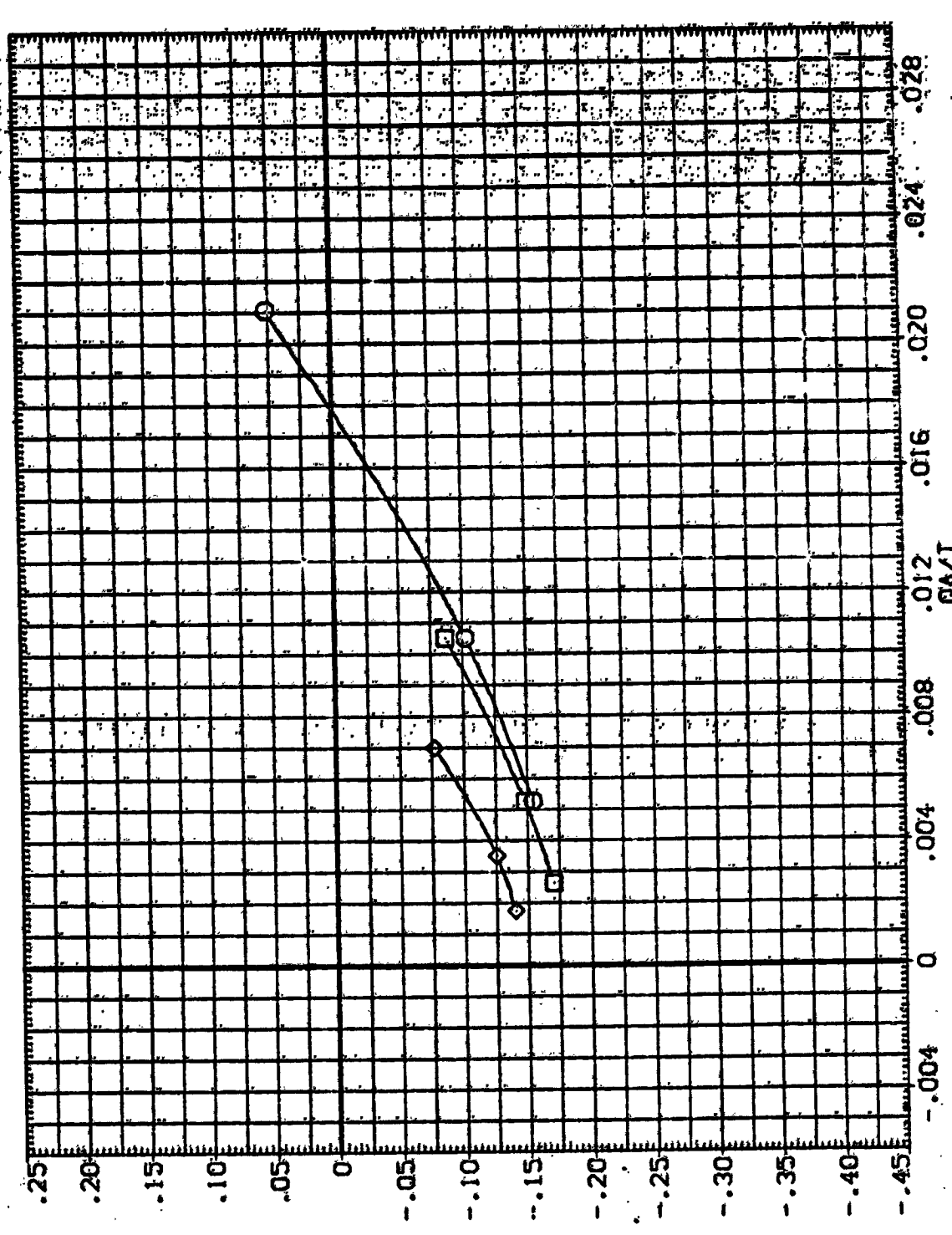


FIGURE 25. EFFECT OF MULTIPLE JET RES FIRINGS, N79, N49, N83
 (JJ)ALPHA = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) 01N79 LARC CFHT 118 (MA-22)
 (SJA002) 01N49 LARC CFHT 118 (MA-22)
 (SJA003) 01N83 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDF LAP BETA
 .008 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

REFERENCE INFORMATION
 SREF 2650.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6000 INCHES
 XREF 1076.7000 IN. X0
 YREF .0000 IN. Y0
 ZREF 375.0000 IN. Z0
 SCALE .0100

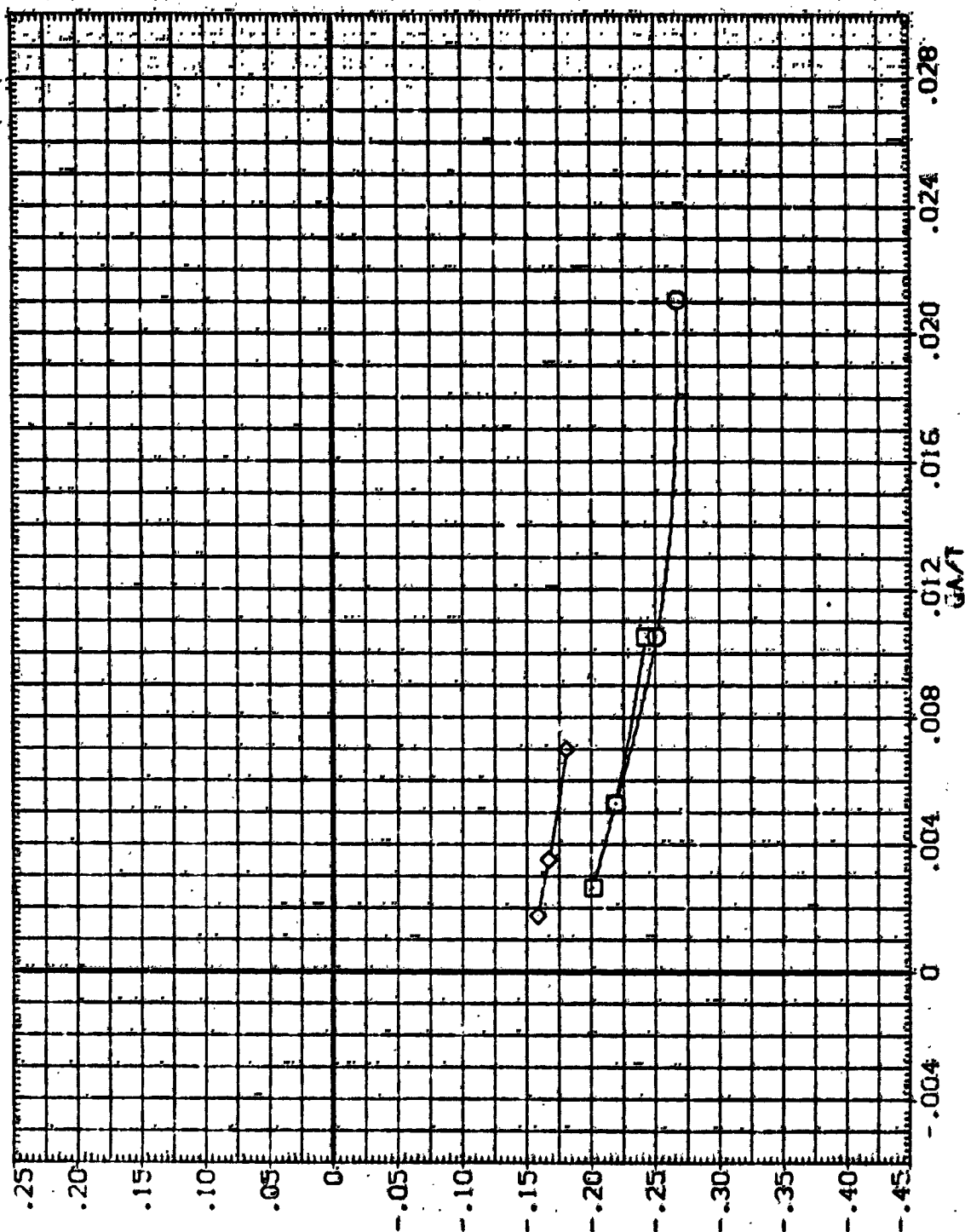


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.N49.N83

(K)ALPHA = 15.00

REFERENCE INFORMATION
 SREF 2690.0000 SD 1.1
 LREF 474.2000 INCHES
 BREF 535.6800 INCHES
 XREF 1076.7000 IN. 1
 YREF 0.0000 IN. 2
 ZREF 375.0000 IN. 3
 SCALE .0100

ELEVON NO. JET BOFLAP BETA
 .000 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

CONFIGURATION DESCRIPTION
 Q1N09 LARC CFHT 118 (MA-221)
 Q1N43 LARC CFHT 118 (MA-221)
 Q1N83 LARC CFHT 118 (MA-221)

RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, (N/A)

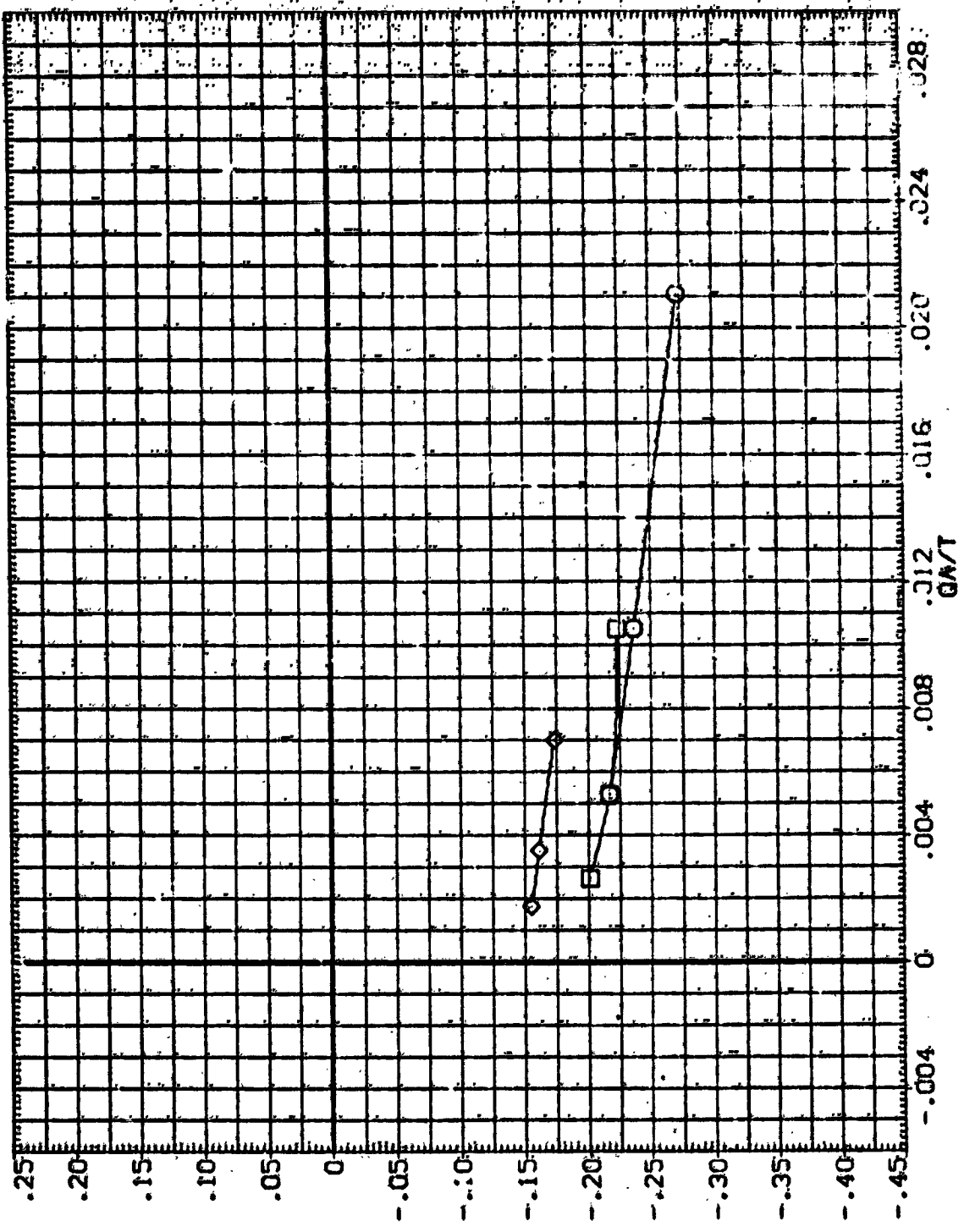


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.N49.N83

(L)ALPHA = 20.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BOFLAP		BETA		REFERENCE INFORMATION	
(SJA001)	01M89	LARC	CFMT 118 (MA-22)	.000	1.000	.000	.000	.000	SREF	2500.0000	SOJ.FT.	2500.0000	1.0000
(SJA002)	01M89	LARC	CFMT 118 (MA-22)	.000	2.000	.000	.000	.000	LREF	474.8000	INCHES	474.8000	1.0000
(SJA003)	01M89	LARC	CFMT 118 (MA-22)	.000	3.000	.000	.000	.000	BREF	936.5000	INCHES	936.5000	1.0000
									XREF	1076.7000	INCHES	1076.7000	1.0000
									YREF	375.0000	INCHES	375.0000	1.0000
									ZREF	.0000	INCHES	.0000	1.0000
									SCALE	.0000			

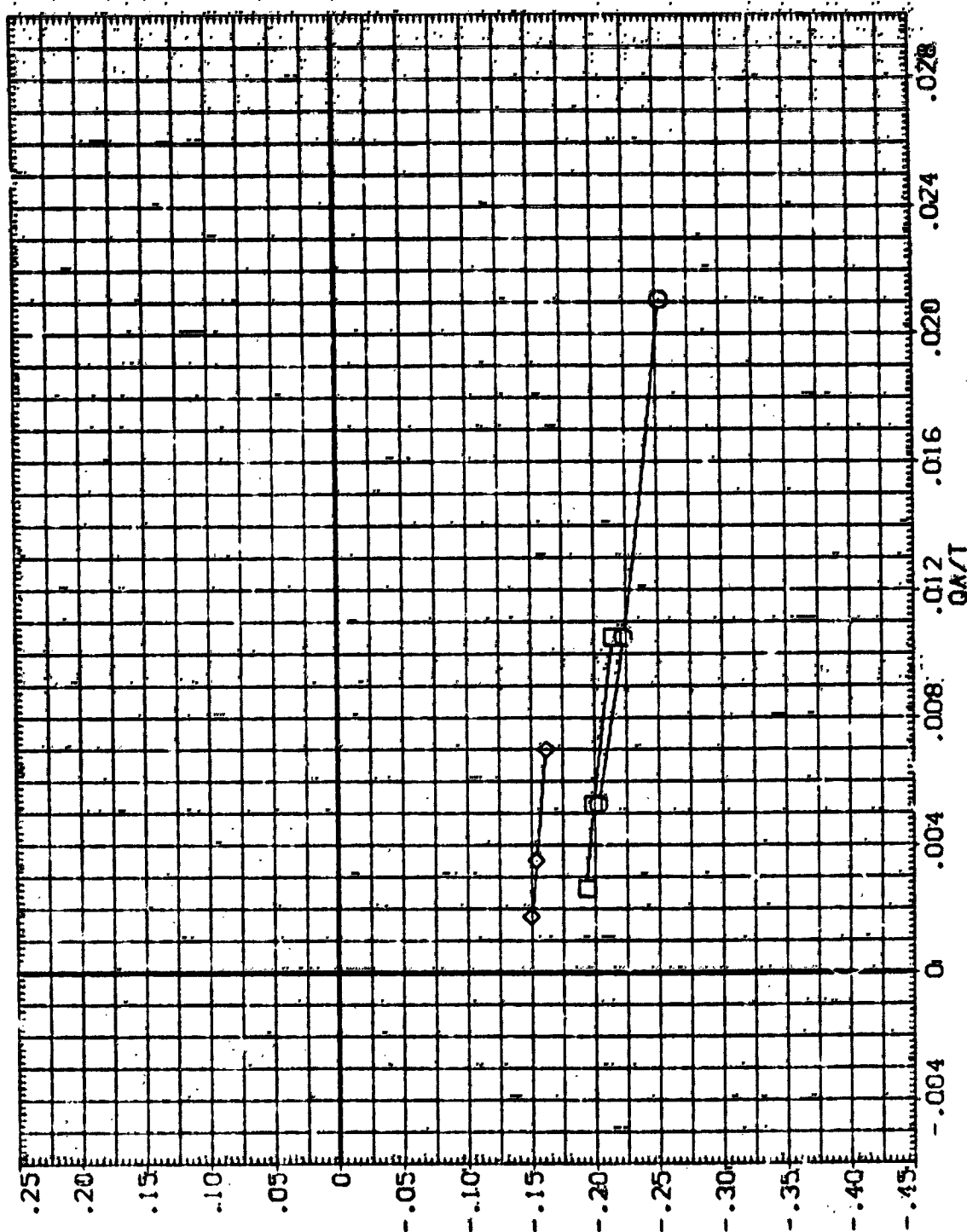


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79.N49.N83

(MIALPHA = 25.00)

(SJA001)
(SJA002)
(SJA003)

QIN79
QIN49
QIN83

LARC CFHT 118 (MA-22)
LARC CFHT 118 (MA-22)
LARC CFHT 118 (MA-22)

0.000
0.000
0.000

1.000
2.000
3.000

0.000
0.000
0.000

0.000
0.000
0.000

0.000
0.000
0.000

0.000
0.000
0.000

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0.000
0.000

0.000
0.000
0.000

0.000
0.000
0.000

0.000
0.000
0.000

0.000
0.000
0.000

RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, (NAF)

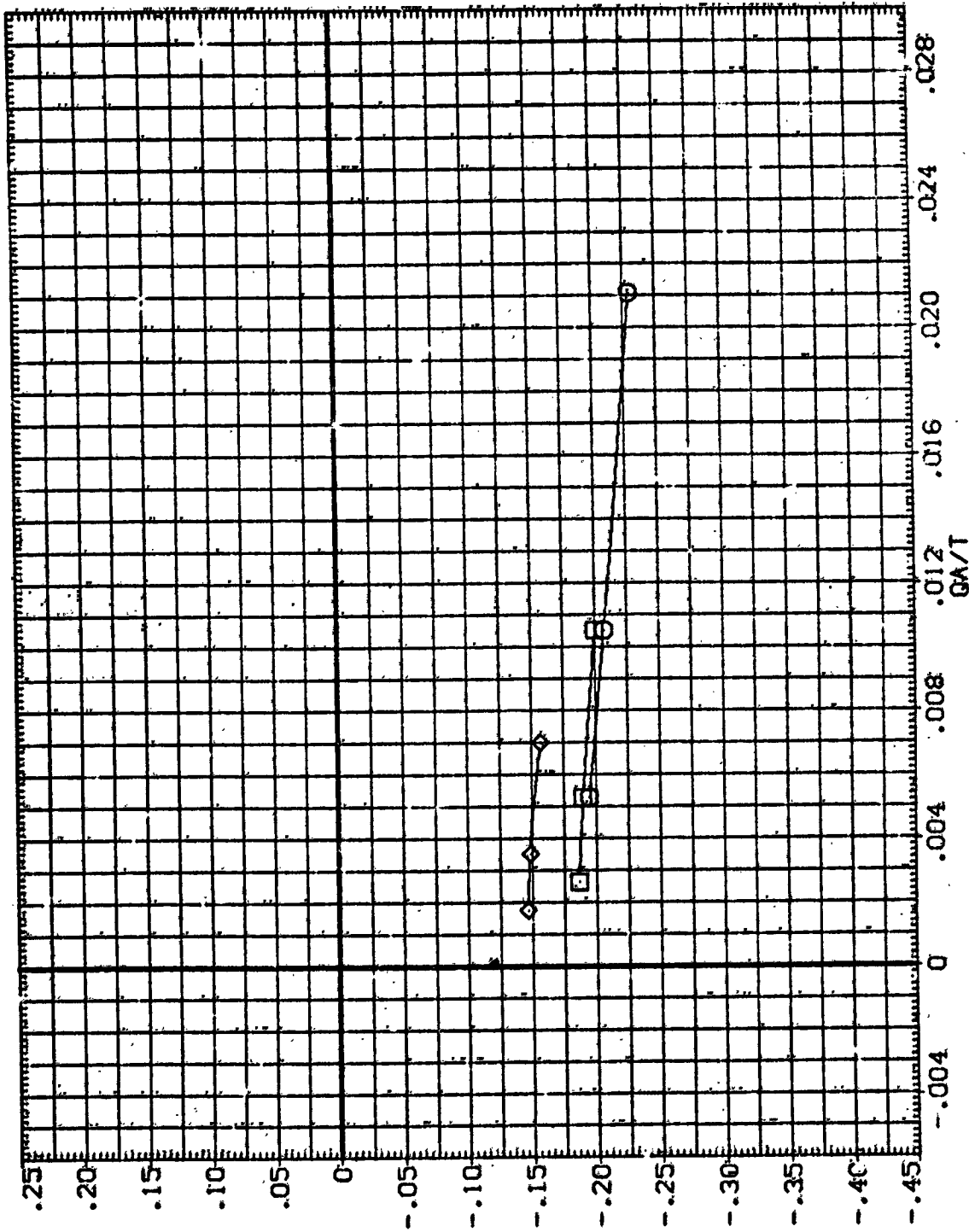


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

(NJALPHA = 30.00)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJ0001)	CLN79 LARC CFHT 118 (NA-22)	.000	1.000	.000	.000	SREF 2690.0000 SQ. FT.
(SJ0002)	CLN49 LARC CFHT 118 (NA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJ0003)	CLN83 LARC CFHT 118 (NA-22)	.000	3.000	.000	.000	BREF 936.6800 IN. X0
						XMRP 1076.7000 IN. Y0
						YMRP .0000 IN. Z0
						ZMRP 375.0000 IN. Z0
						SCALE .0100

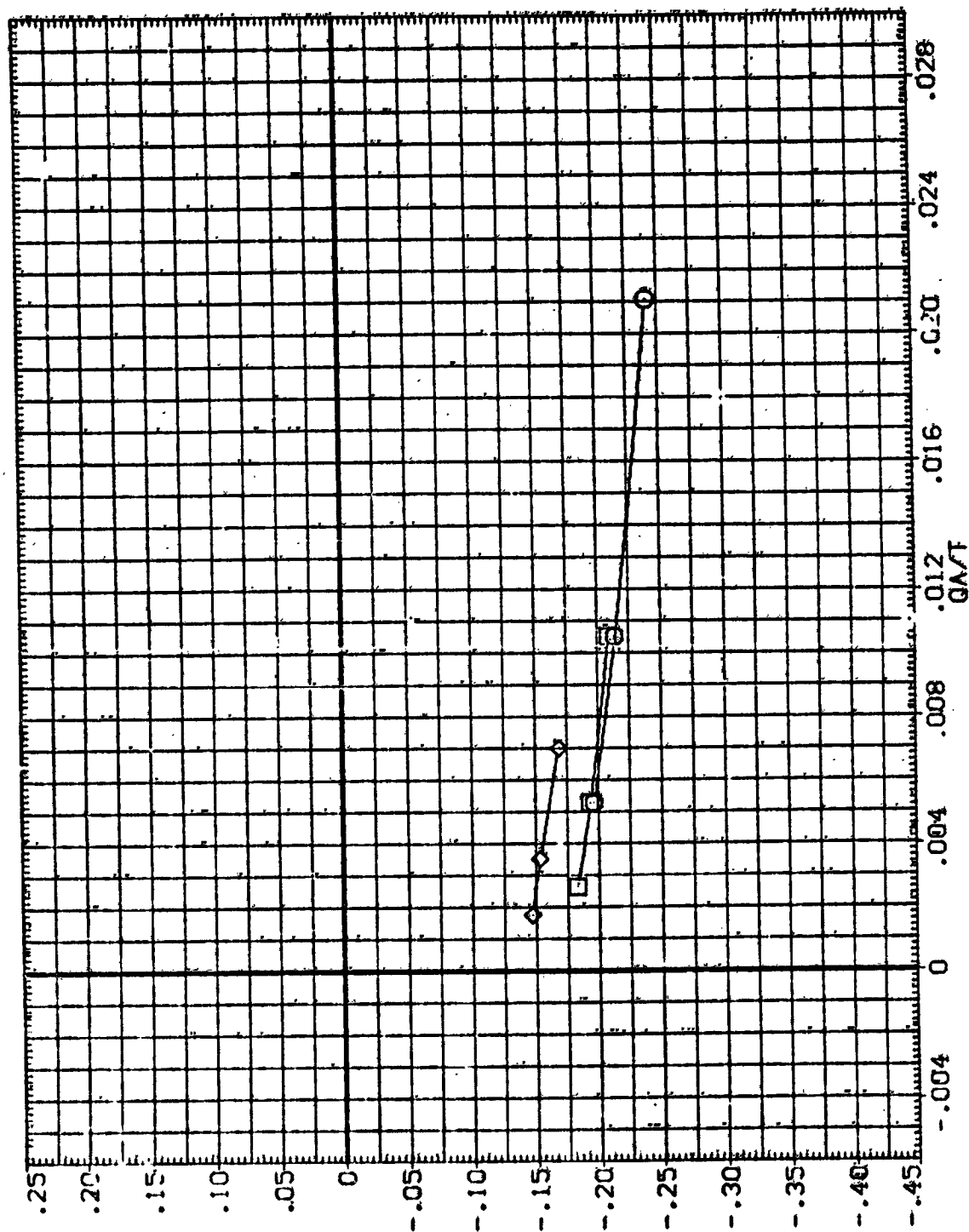


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(*) ALPHA = 35.00

DATA SET SYMBOL: Q1N83
 (SJA001) LARC CFHT 118 (MA-22)
 (SJA002) LARC CFHT 118 (MA-22)
 (SJA003) LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
 .080 1.000 .060 .000
 .080 2.000 .060 .000
 .080 3.000 .060 .000

REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XTRP 1076.7000 IN. 10
 YTRP .0000 IN. 10
 ZTRP 325.0000 IN. 20
 SCALE .0100

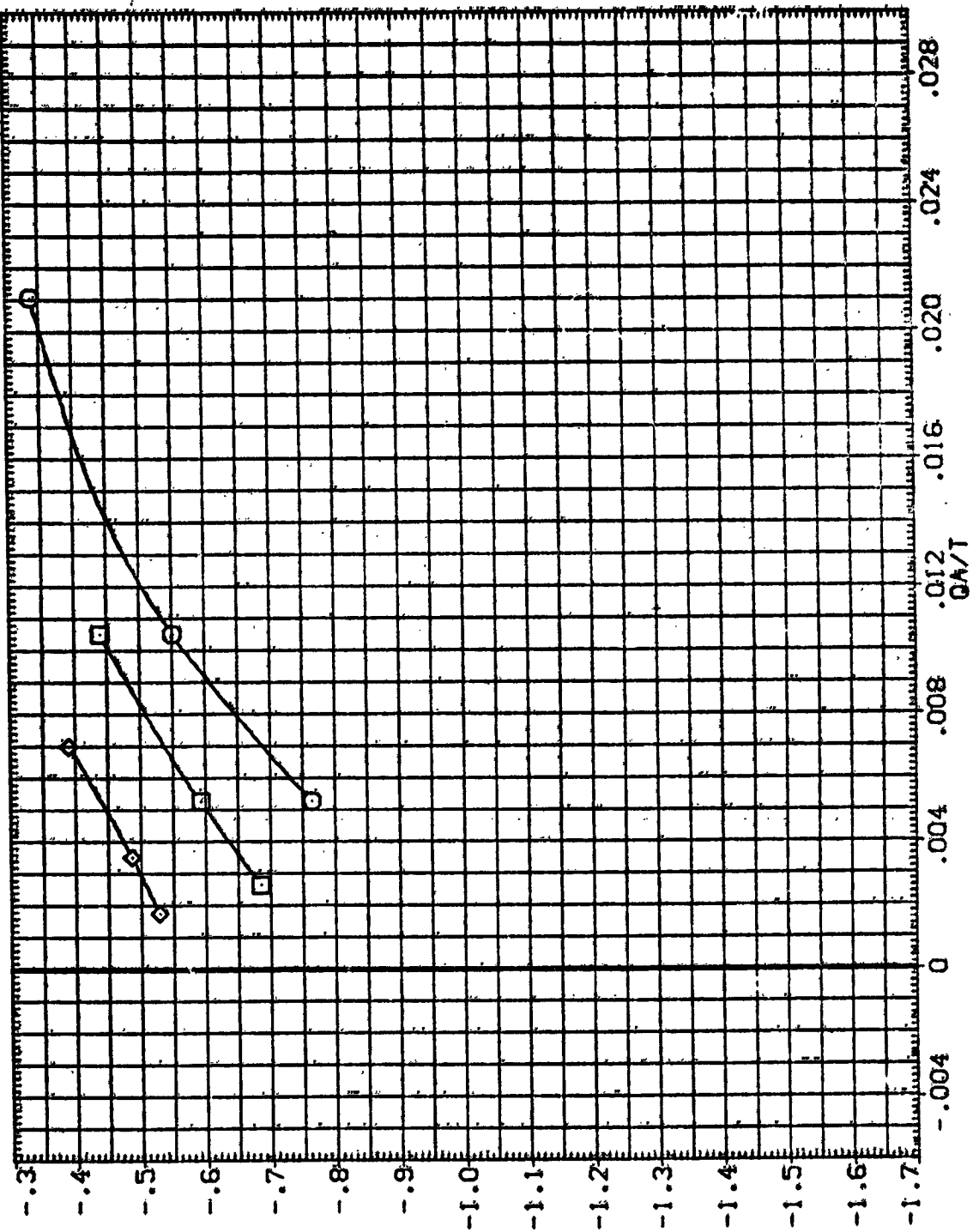


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

(A)ALPHA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001)	LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 SO. FT.
(SJA002)	LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA003)	LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6800 INCHES
						XMRP 1076.7000 IN. 20
						ZMRP .0800 IN. 20
						SCALE .0100

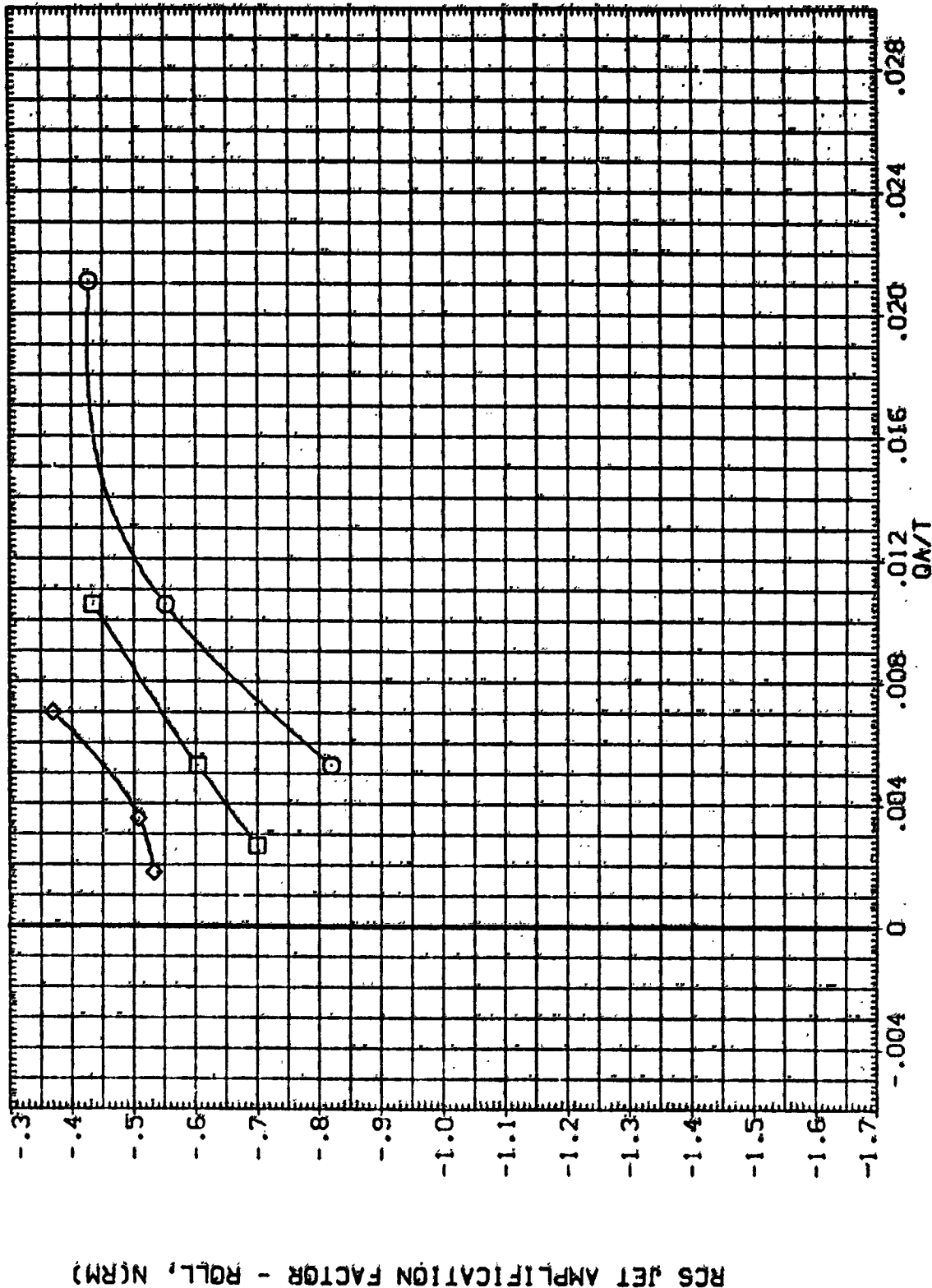


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

(B)ALPHA = -6.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001)	01N79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 SQ. FT.
(SJA002)	01N49 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA003)	01N83 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6800 INCHES
						XRRP 1076.7000 IN. X0
						YRRP .0000 IN. Y0
						ZRRP 375.0000 IN. Z0
						SCALE .0100

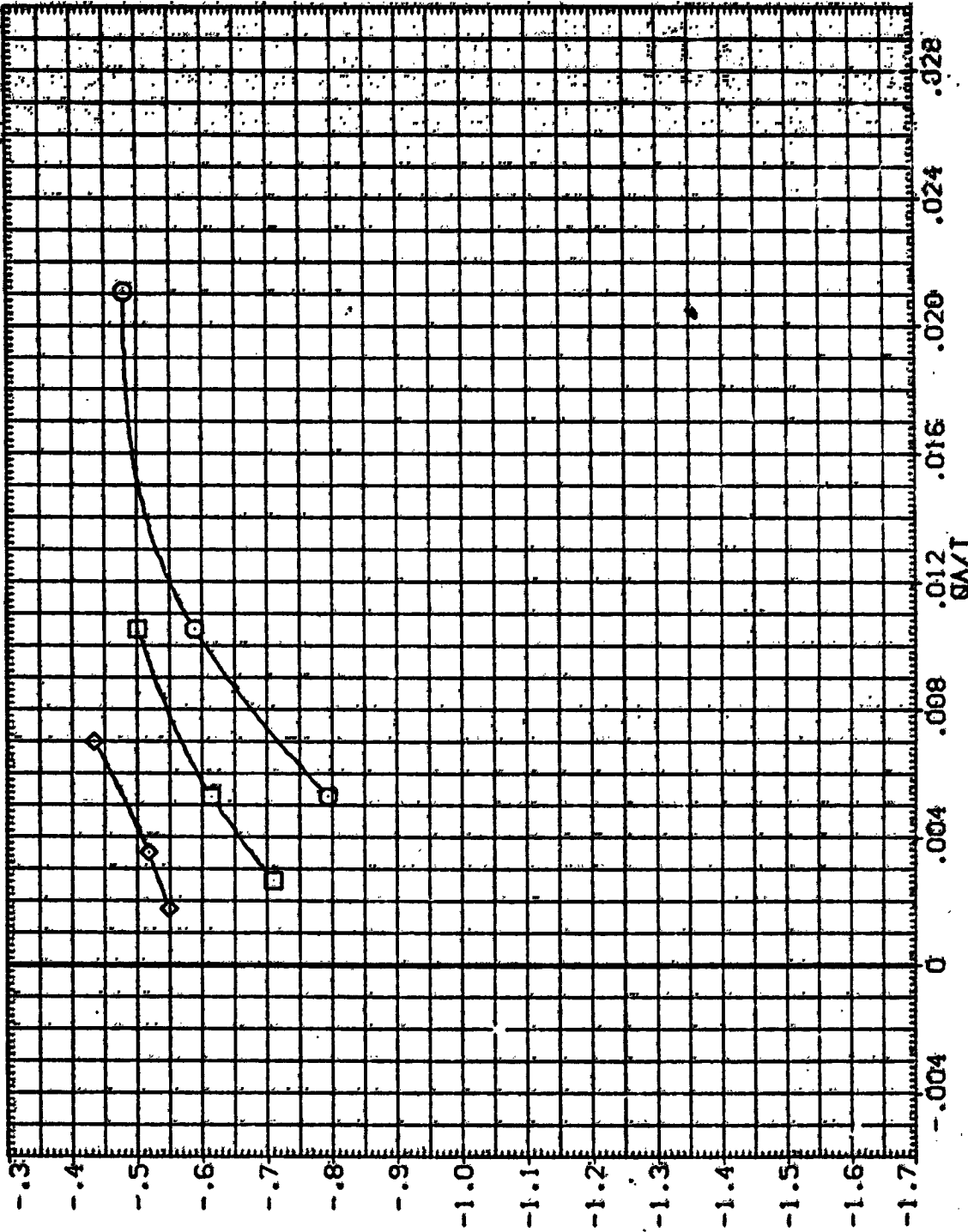


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79, N49, N83

(C) ALPHA = -4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(SJA001)	QIN73	LARC CFHT 118 (MA-22)
(SJA002)	QIN43	LARC CFHT 118 (MA-22)
(SJA003)	QIN83	LARC CFHT 118 (MA-22)

ELEVON NO. JET BCFLAP BETA

.000	1.000	.000	.000
.000	2.000	.000	.000
.000	3.000	.000	.000

REFERENCE INFORMATION

SREF	2690.0000	50. FT.
LREF	474.8000	INCHES
BREF	936.6000	INCHES
XMRP	1076.7000	IN. TO
YMRP	.0000	IN. TO
ZMRP	375.0000	IN. TO
SCALE	.0100	

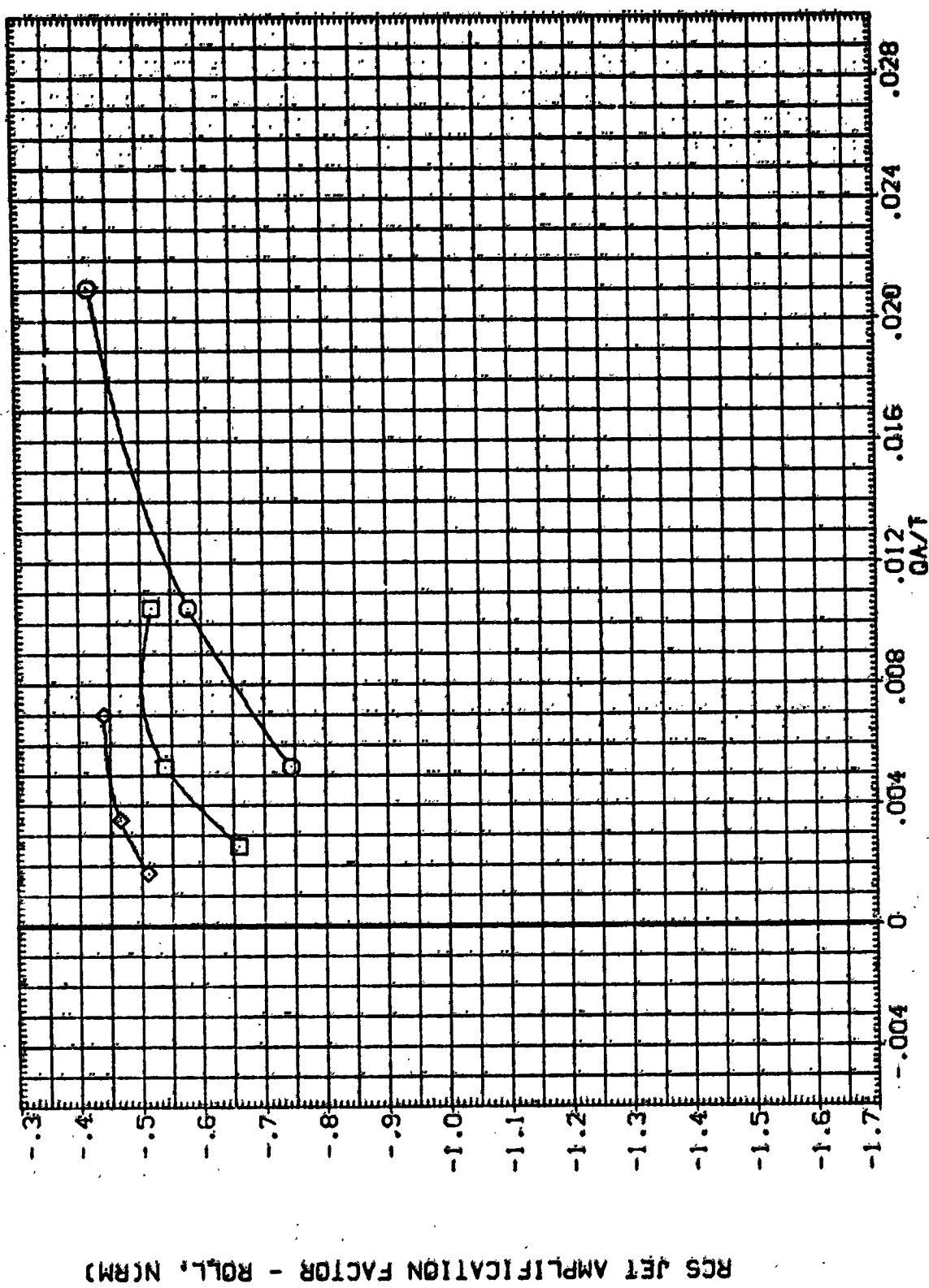


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79-N49-N83

(O) ALPHA = -2.00

DATA SET SYMBOL
 (SJA001)
 (SJA002)
 (SJA003)

ELEVON NO. JET BOFLAP BETA
 .000 .000 .000
 .000 .000 .000
 .000 .000 .000

CONFIGURATION DESCRIPTION
 01N79 LARC CFMT 118 (MA-22)
 01N83 LARC CFMT 118 (MA-22)
 01N83 LARC CFMT 118 (MA-22)

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 YARP 1076.7000 IN. RO
 ZARP .0000 IN. VO
 SCALE 375.0000 IN. ZO

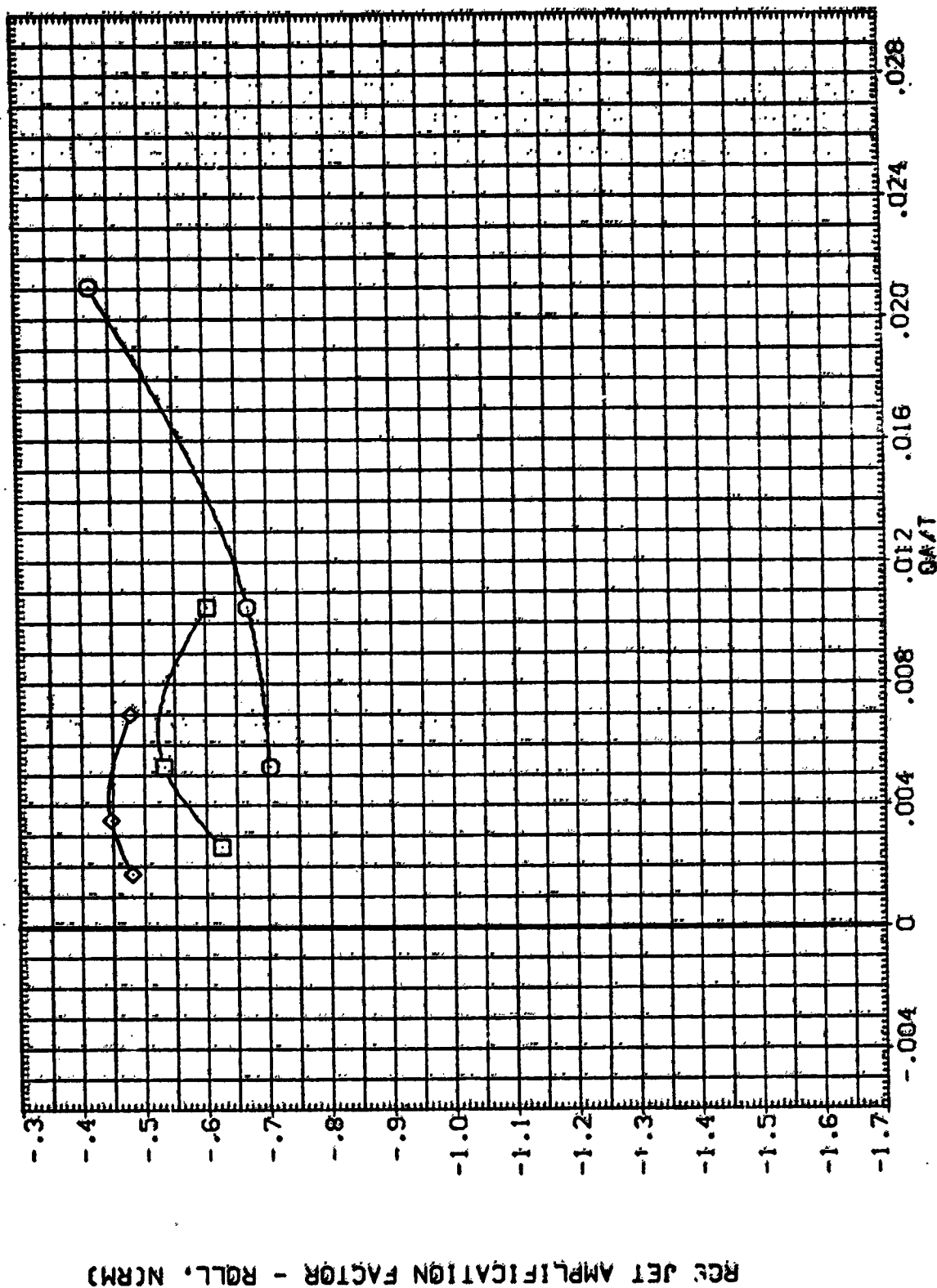
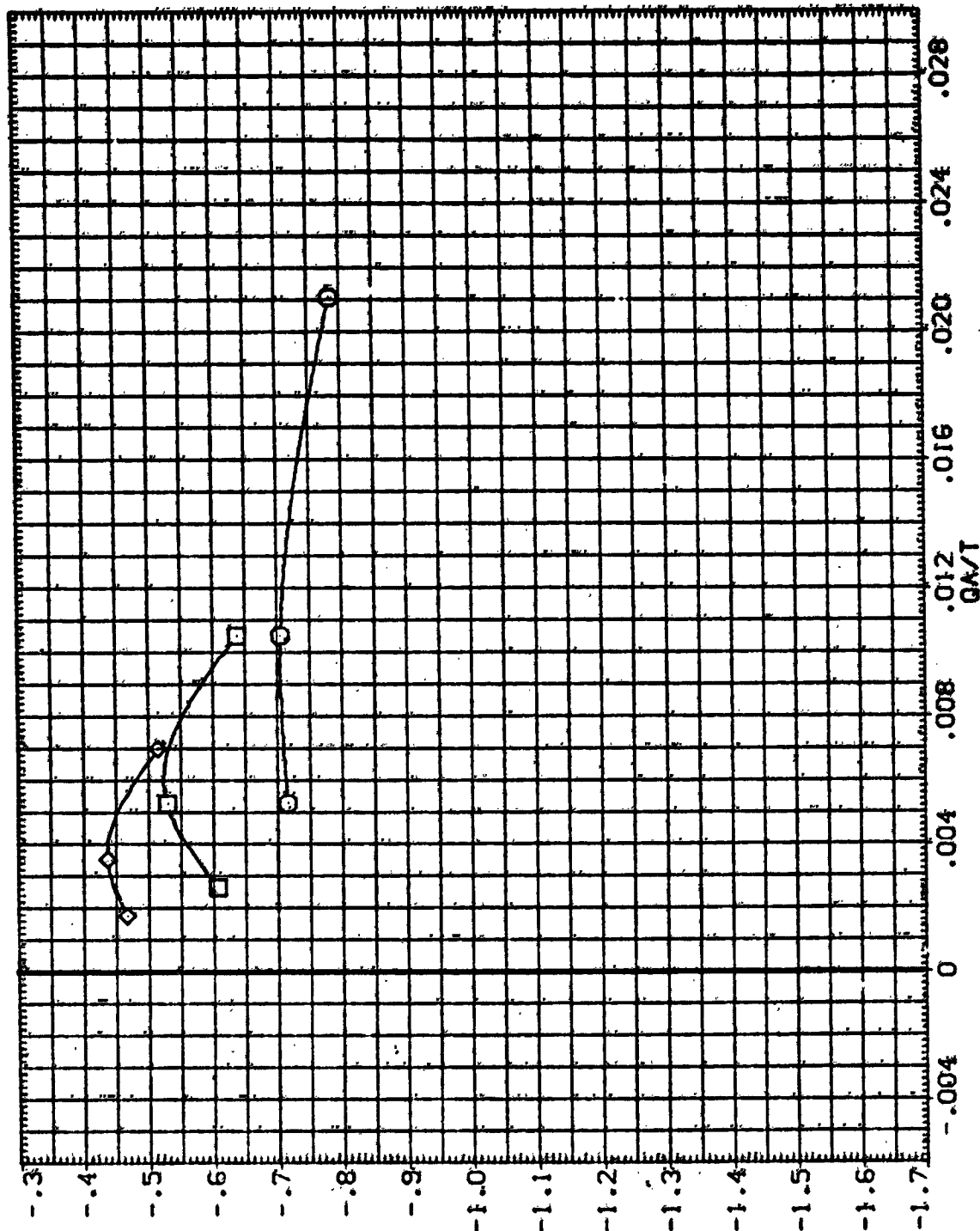


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79-N49-N83

(E) ALPHA = .00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) LARC CFMT 118 (MA-22)
 (SJA002) LARC CFMT 118 (MA-22)
 (SJA003) LARC CFMT 118 (MA-22)

ELEVON NO. JET BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2650.0000 SD. FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 BREF 936.6800 INCHES
 .000 .000 .000 XREF 1076.2000 IN. X0
 .000 .000 .000 YREF 375.0000 IN. Y0
 .000 .000 .000 ZREF 375.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, NORM

FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79, M9, N83

(F)ALPHA = 2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJ0001) 01N79 LARC CFHT 118 (MA-22)
 (SJ0002) 01N49 LARC CFHT 118 (MA-22)
 (SJ0003) 01N80 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 .000 SREF 2690.0000 SQ. FT.
 .000 2.000 .000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 .000 BREF 936.6800 INCHES
 YMRP 1076.2000 IN. 10
 ZMRP 375.0000 IN. 20
 SCALE .0100

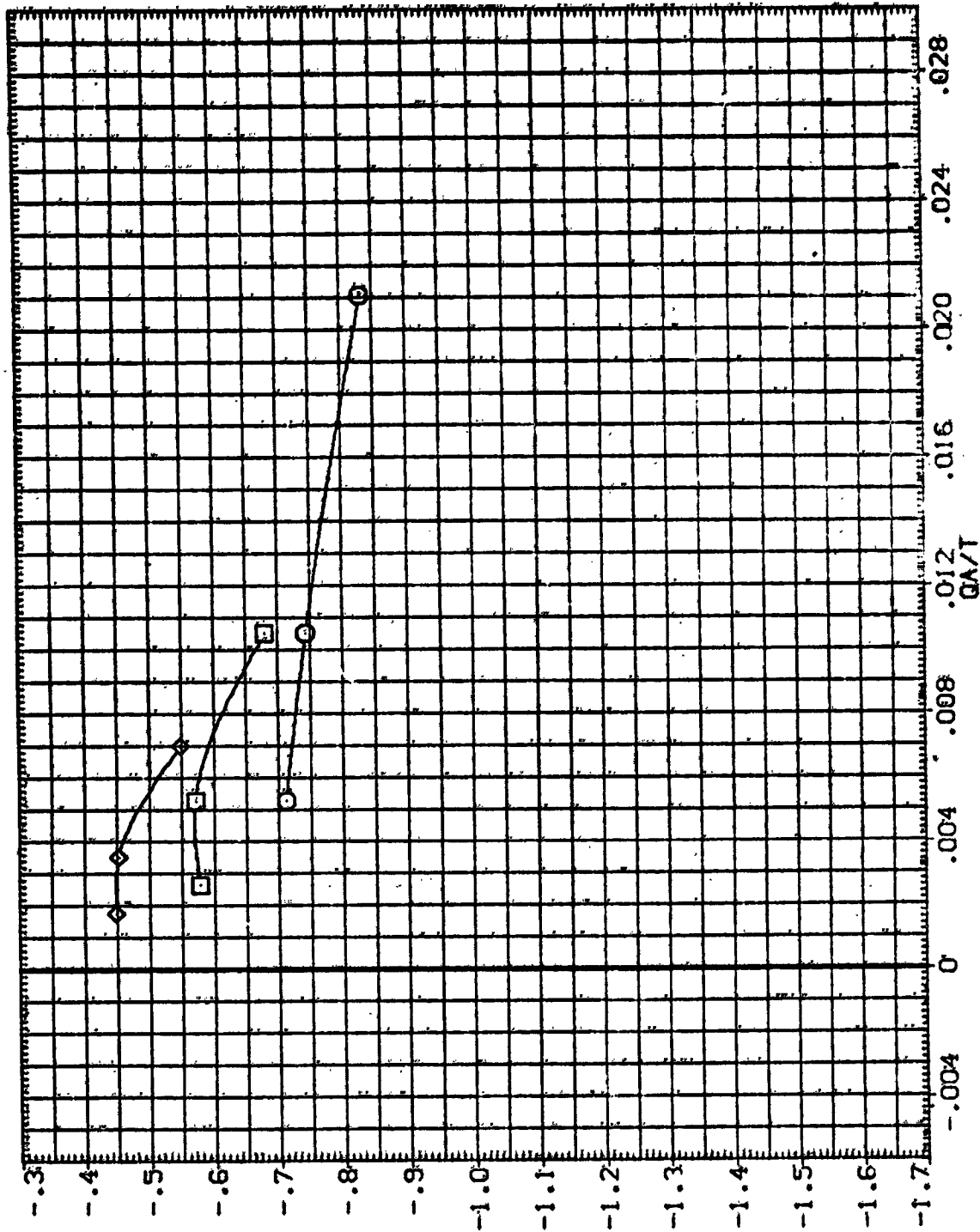


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(G)ALPHA = 4.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001)	LARC CFHT 118 (MA-221)	.000	1.000	.000	.000	SREF 2530.0000
(SJA002)	LARC CFHT 118 (MA-221)	.000	2.000	.000	.000	LREF 474.8000
(SJA003)	LARC CFHT 118 (MA-221)	.000	3.000	.000	.000	BREF 935.6000
						YREF 1076.2000
						ZREF 375.0000
						SCALE .0100

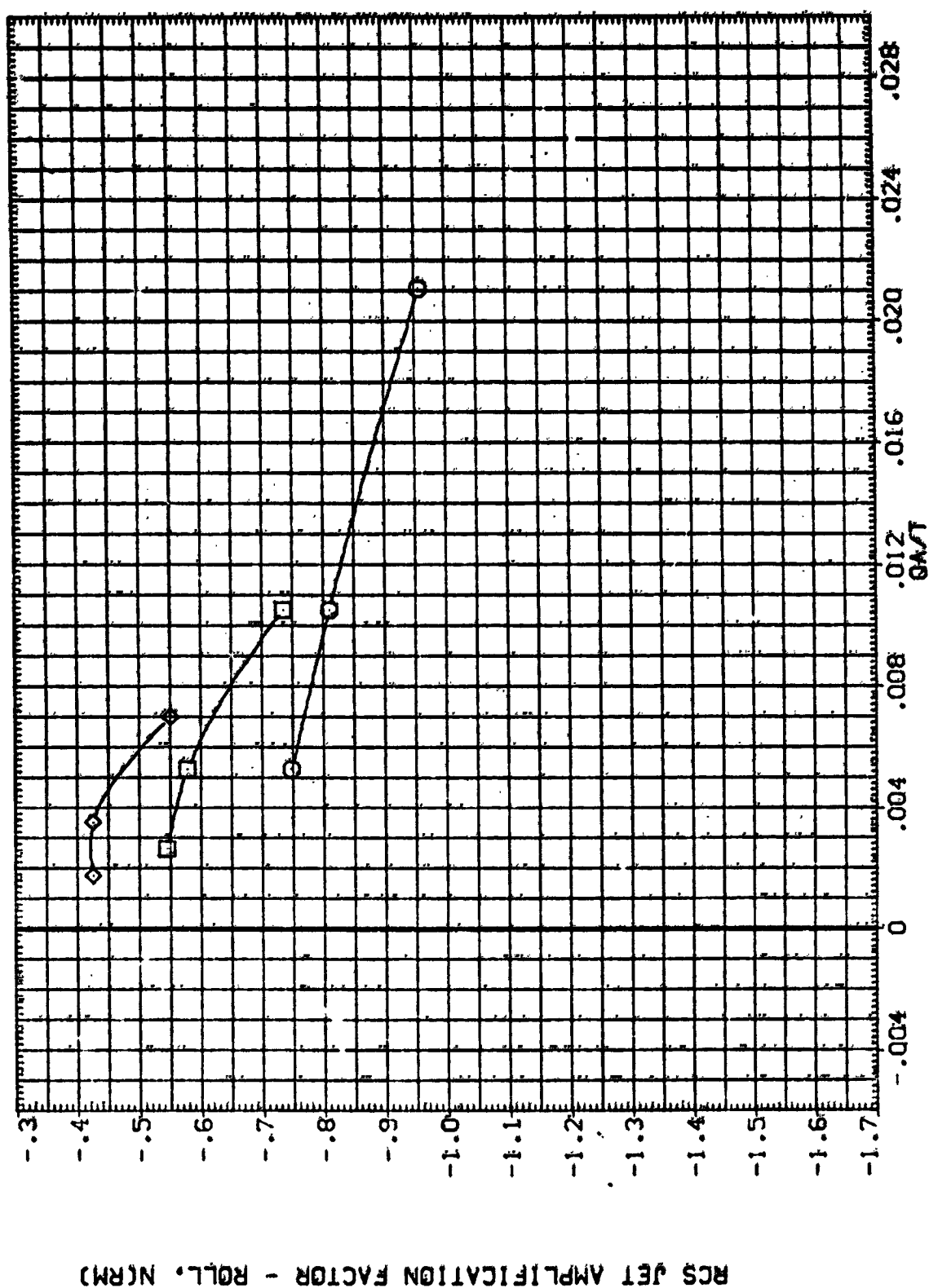


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.N49.N83

(H)ALPHA = 6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJAD01) LARC CPHT 118 (NA-22)
 (SJAD02) LARC CPHT 118 (NA-22)
 (SJAD03) LARC CPHT 118 (NA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION
 .008 1.000 .000 2690.0000 SO. FT.
 .000 2.000 .000 474.8000 INCHES
 .000 3.000 .000 936.6000 INCHES
 .000 1076.7000 IN. 10
 .000 375.0000 IN. 10
 .0100 SCALE

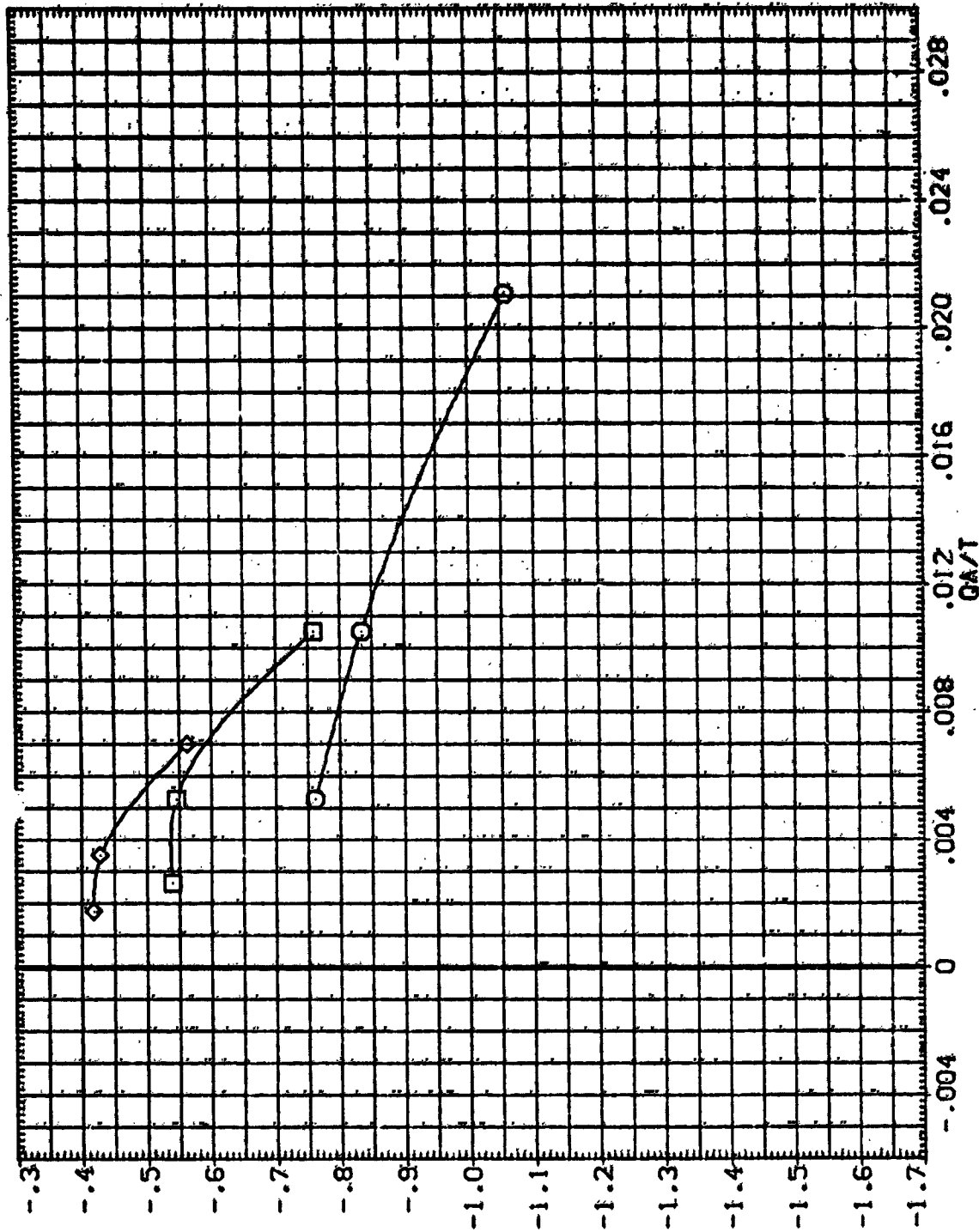


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.N49.N83

(1) ALPHA = 8.00

DATA SET SYMBOL: Q1N79, Q1N49, Q1N83
 CONFIGURATION DESCRIPTION: LARC CFHT 118 (MA-22), LARC CFHT 118 (MA-22), LARC CFHT 118 (MA-22)
 REFERENCE INFORMATION: SREF, LREF, BREF, YMRP, ZMRP, SCALE, SQ.FT., INCHES, IN., YD, IN., ZD

ELEVON: .000, .000, .000
 NO. JET: 1.000, 2.000, 3.000
 BDLAP: .000, .000, .000
 BETA: .000, .000, .000

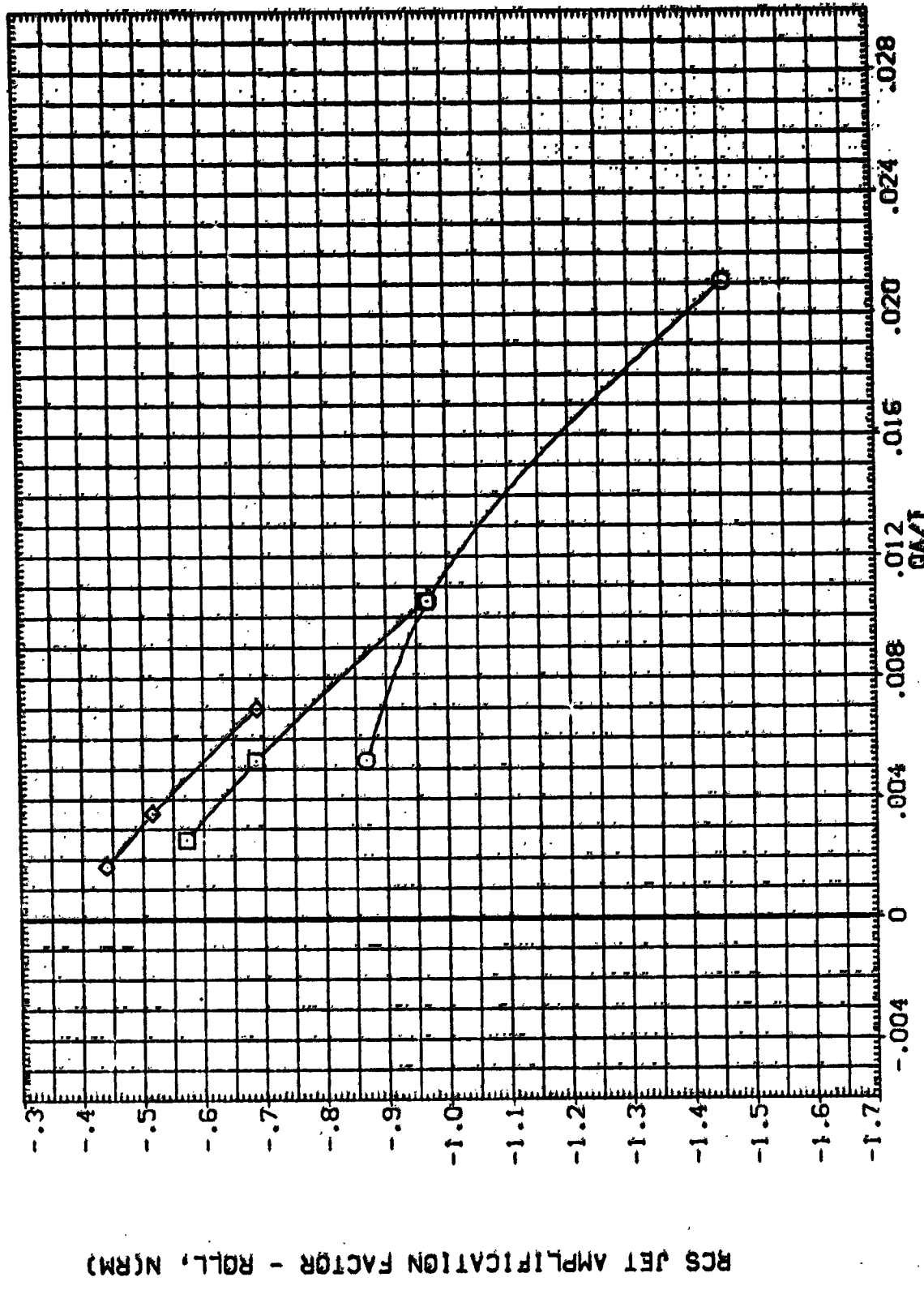


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79, N49, N83
 (J)ALPHA = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJAB01) 01N79 LARC CFMT 118 (MA-22)
 (SJAB02) 01N83 LARC CFMT 118 (MA-22)
 (SJAB03) 01N83 LARC CFMT 118 (MA-22)

ELEVATION NO. JET ROTLAP BETA
 .000 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SO.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. X0
 YREF 0000 IN. Y0
 ZREF 375.0000 IN. Z0
 SCALE .0100

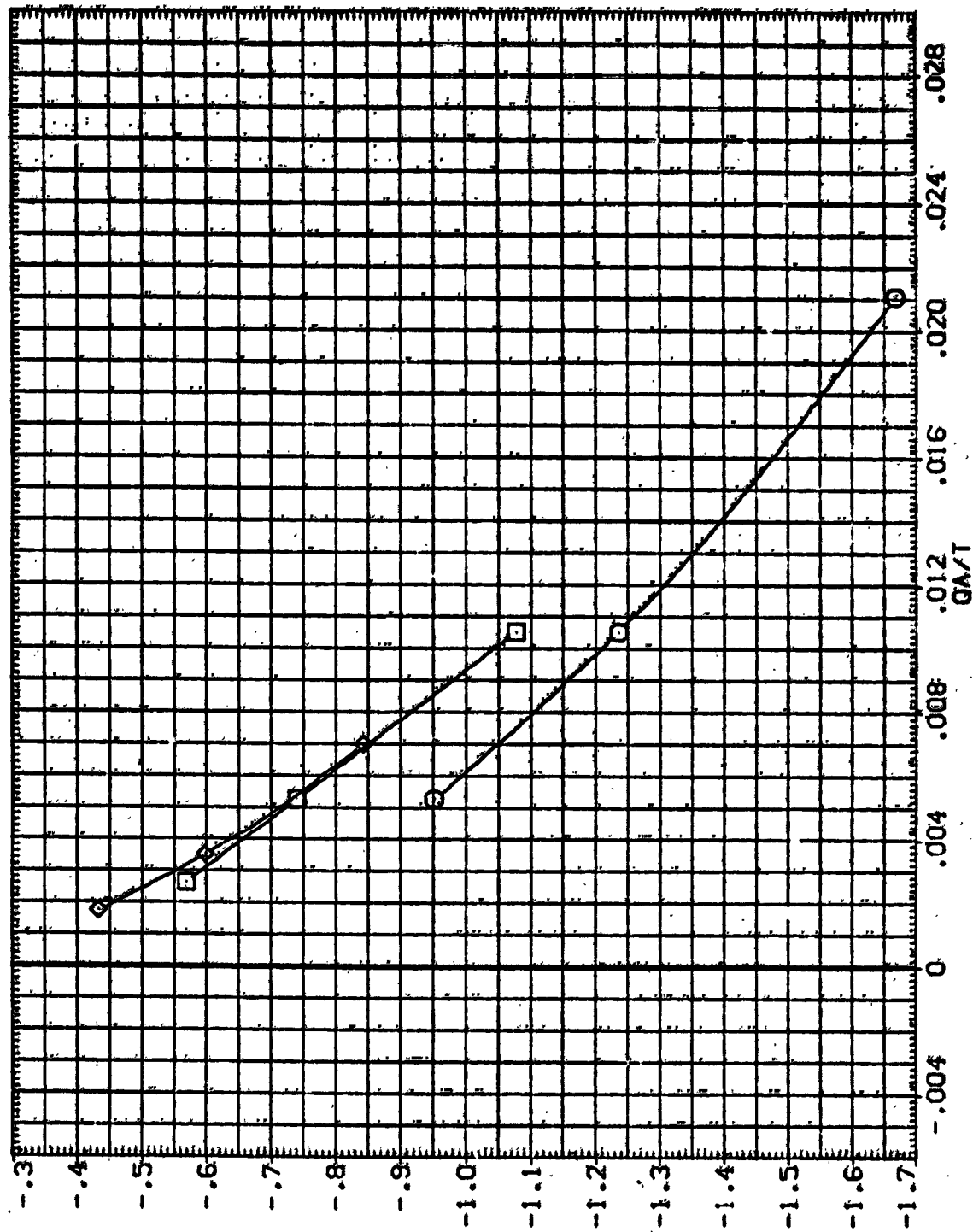


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

(K)ALPHA = 15.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOCLAP	BETA	REFERENCE INFORMATION
(SJA001)	GIN79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 50.00
(SJA002)	GIN49 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 100.00
(SJA003)	GIN83 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.5500 100.00
						XREF 1076.7000 100.00
						YREF .0000 100.00
						ZREF 373.0000 100.00
						SCALE .0100

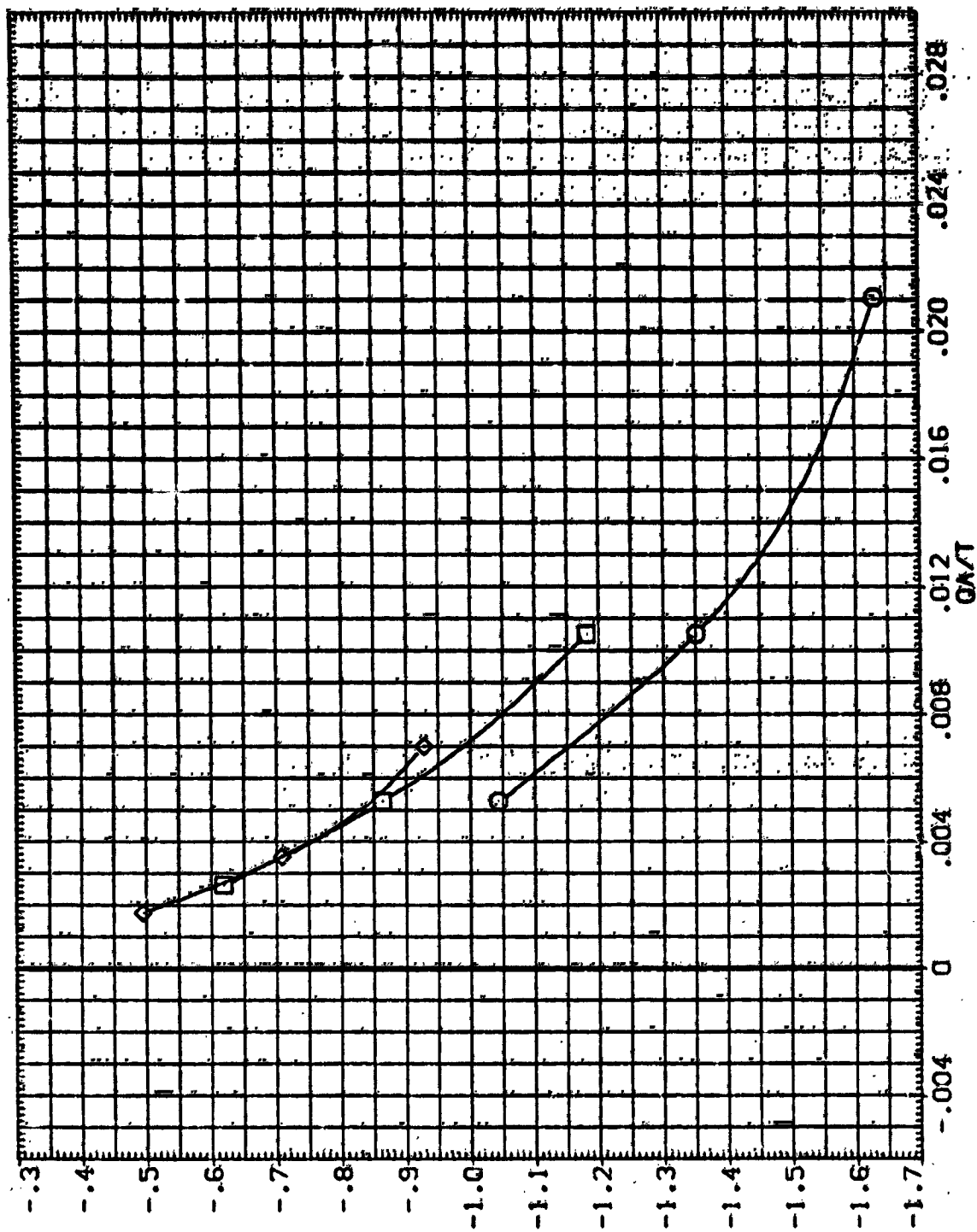


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79-N49-N83

(L)ALPHA = 20.00

REFERENCE INFORMATION
 SREF 2650.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

ELEVON NO. JET BDFLAP BETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) 01N79 LARC CFHT 118 (MA-22)
 (SJA002) 01N43 LARC CFHT 118 (MA-22)
 (SJA003) 01M83 LARC CFHT 118 (MA-22)

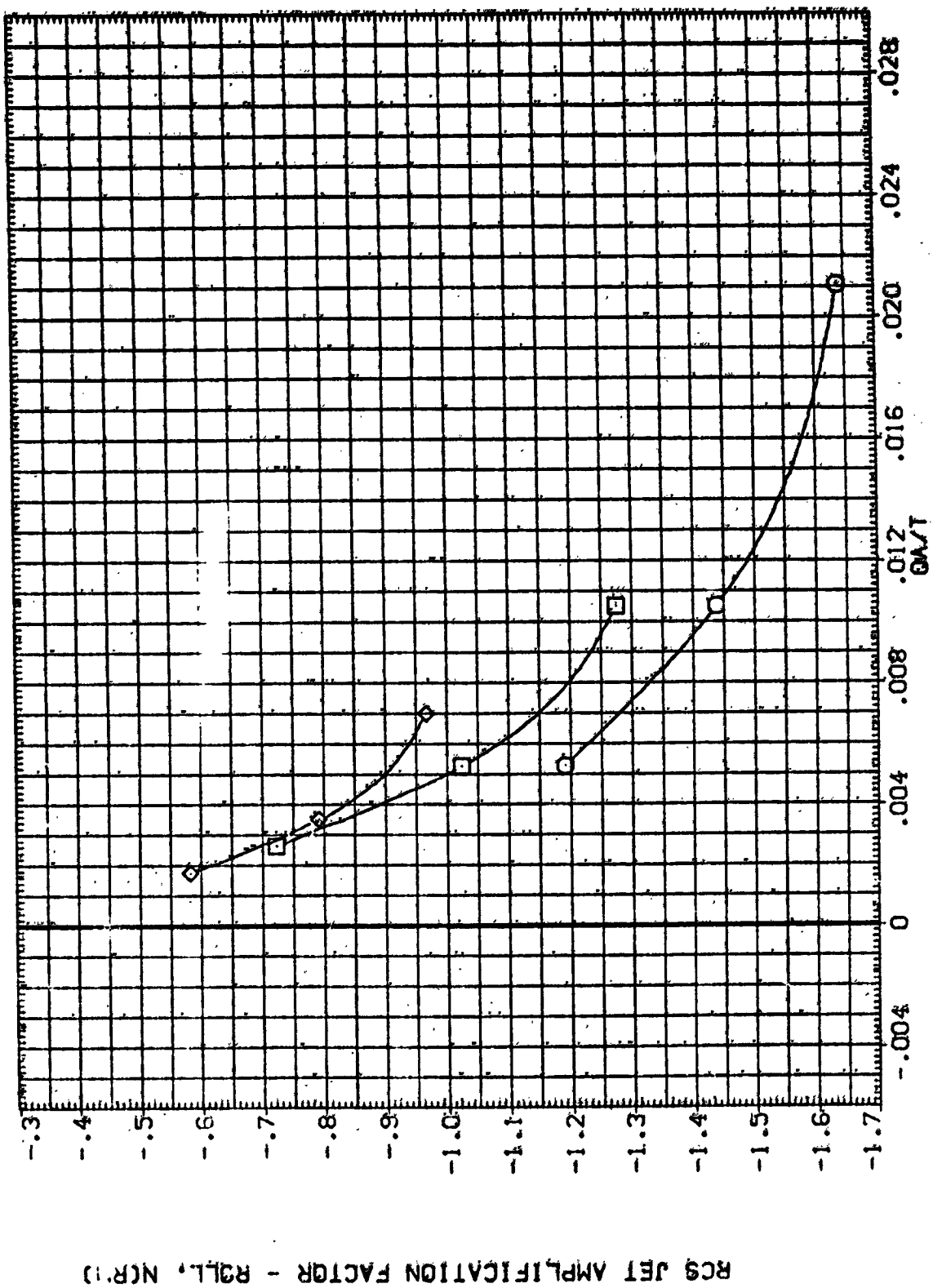


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79, N49, N83

(N) ALPHA = 30.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) QIN79 LARC CFHT 118 (MA-22)
 (SJA002) QIN79 LARC CFHT 118 (MA-22)
 (SJA003) QIN83 LARC CFHT 118 (MA-22)

ELEVOR NO. JET BDF LAP BETA
 .000 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

REFERENCE INFORMATION
 SREF 2630.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7800 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

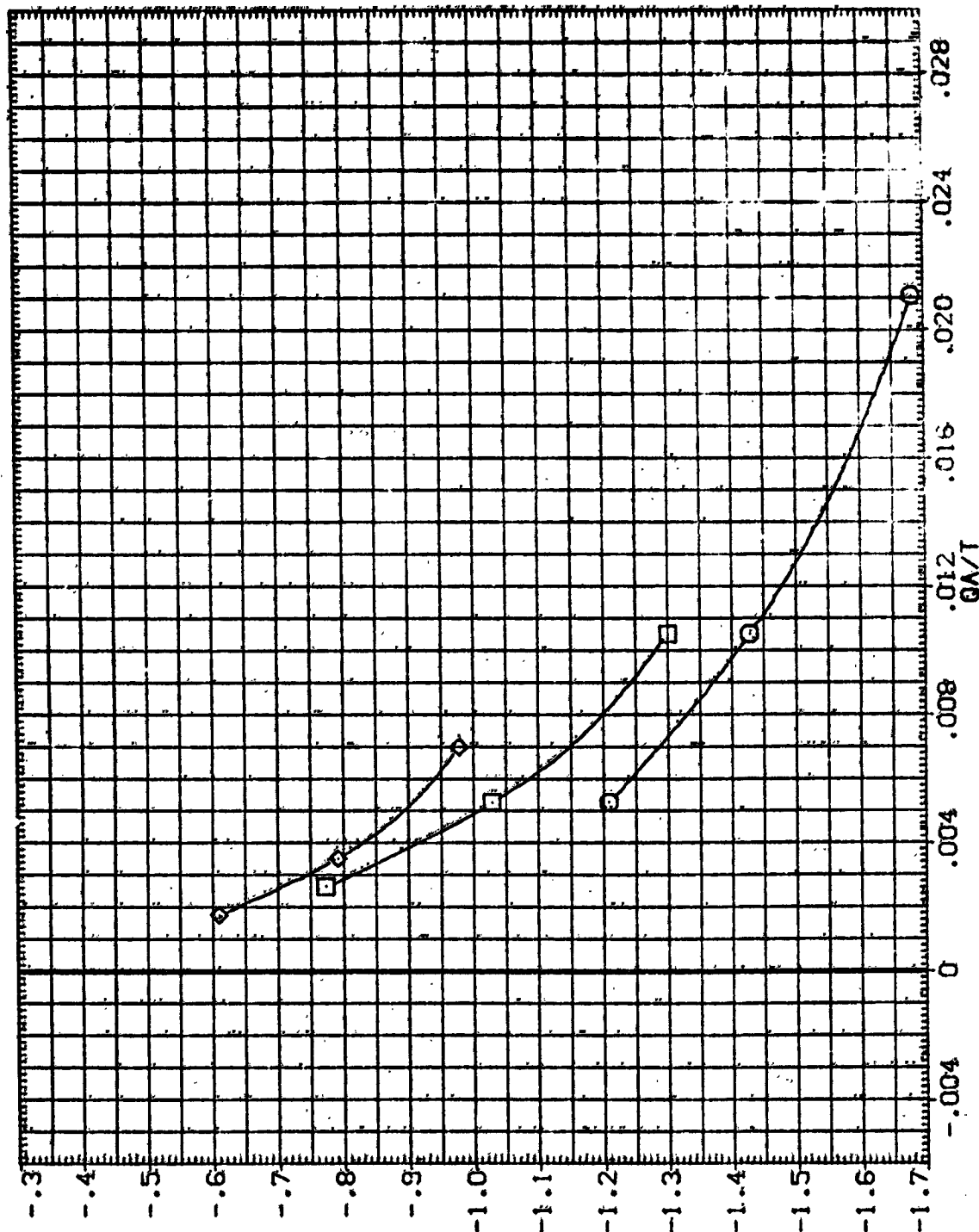


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N73, N49, N83

(QALPHA = 35.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) 01N79 LARC CFHT 118 (MA-22)
 (SJA002) 01N49 LARC CFHT 118 (MA-22)
 (SJA003) 01N83 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDF LAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2690.0000 SQ. FT.
 .000 2.000 .000 LREF 474.8090 INCHES
 .000 3.000 .000 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0080 IN. Z0
 SCALE .0100

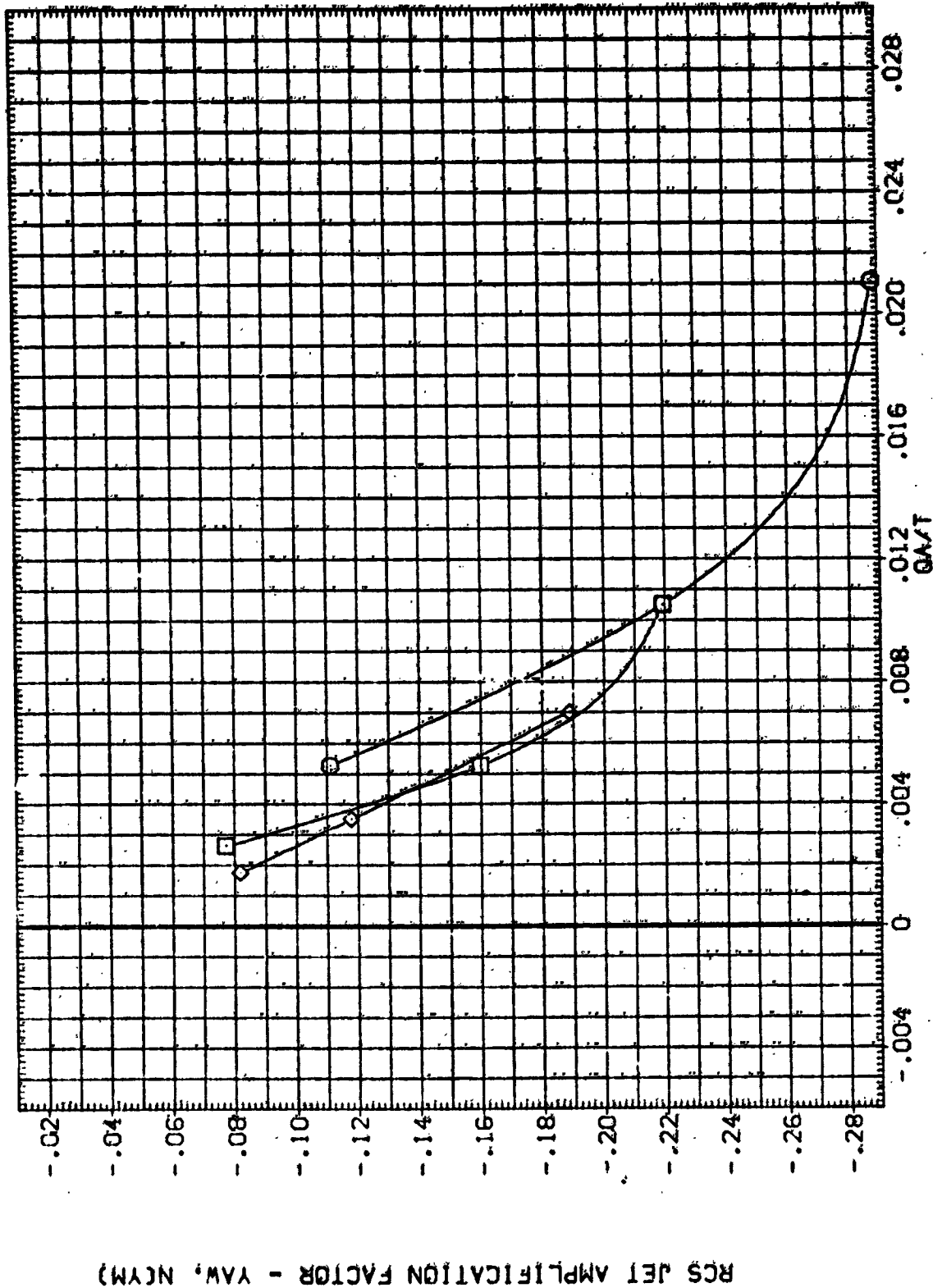


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(α) ALPHA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001)	LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 SO. FT.
(SJA002)	LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA003)	LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6800 INCHES
						XMRP 1076.7000 IN. TO
						YMRP .0000 IN. TO
						ZMRP 375.0000 IN. TO
						SCALE .0100

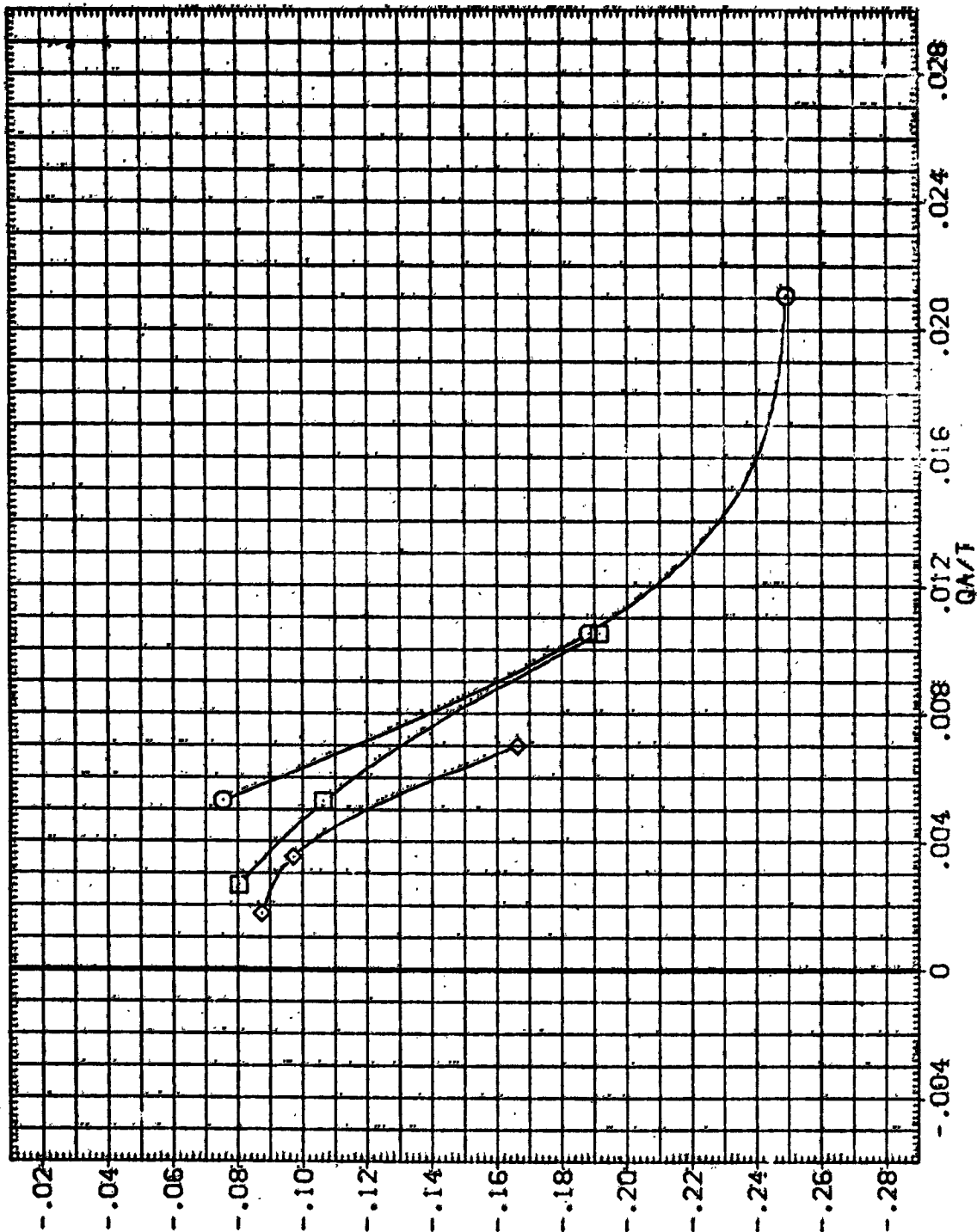


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N73,N49,N83

(B) ALPHA = -6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) 01N79 LARC CFHT 118 (MA-22)
 (SJA002) 01N49 LARC CFHT 118 (MA-22)
 (SJA003) 01N83 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
 .000 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - YAW, NCM)

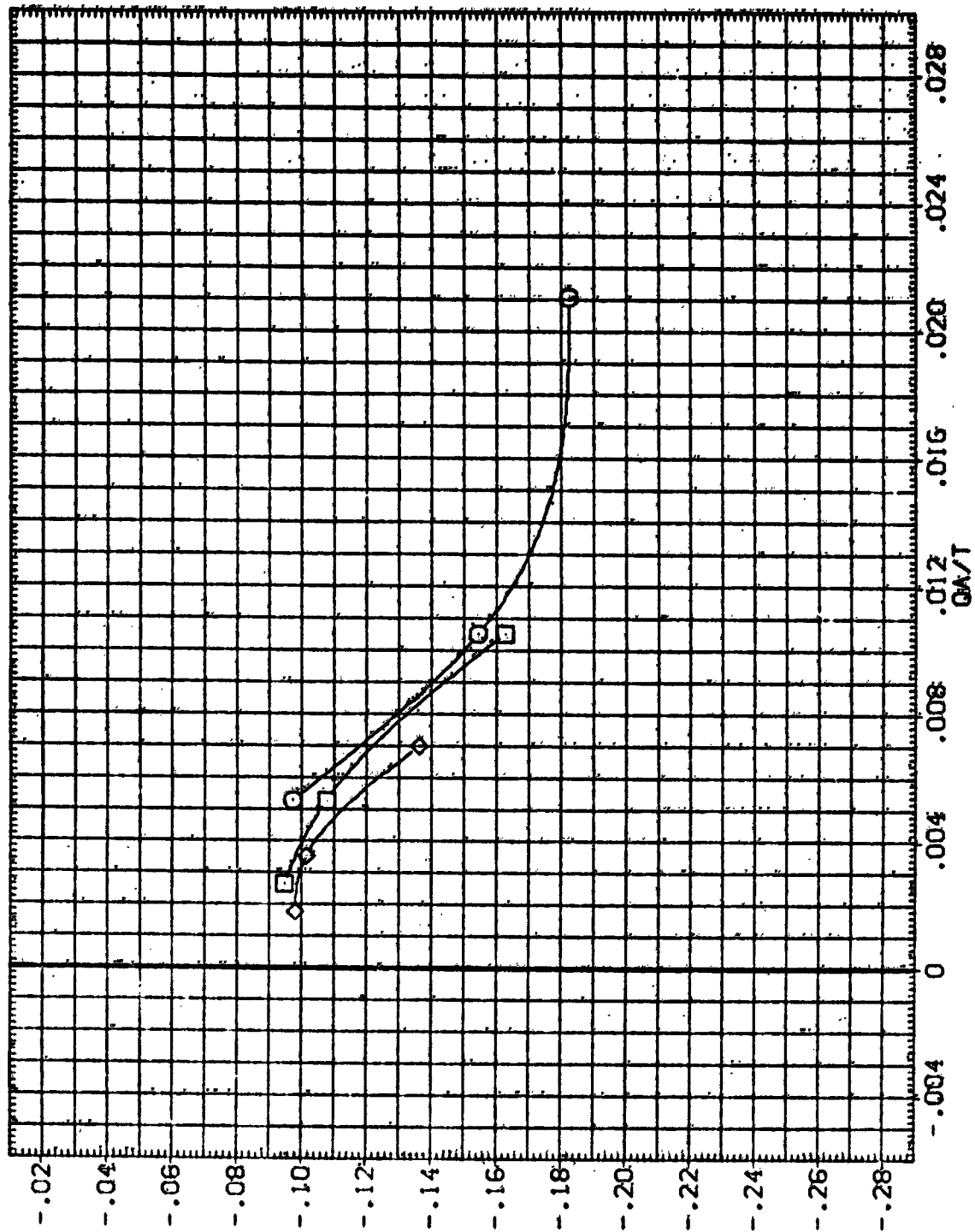


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(C) ALPHA = -4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION:
 (SJA001) 1 QIN79 LARC CFMT 118 (MA-22)
 (SJA002) 1 QIN49 LARC CFMT 118 (MA-22)
 (SJA003) 1 QIN83 LARC CFMT 118 (MA-22)

ELEVON NO. JET BORLAR BETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION:
 SREF 2690.0000 50 FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

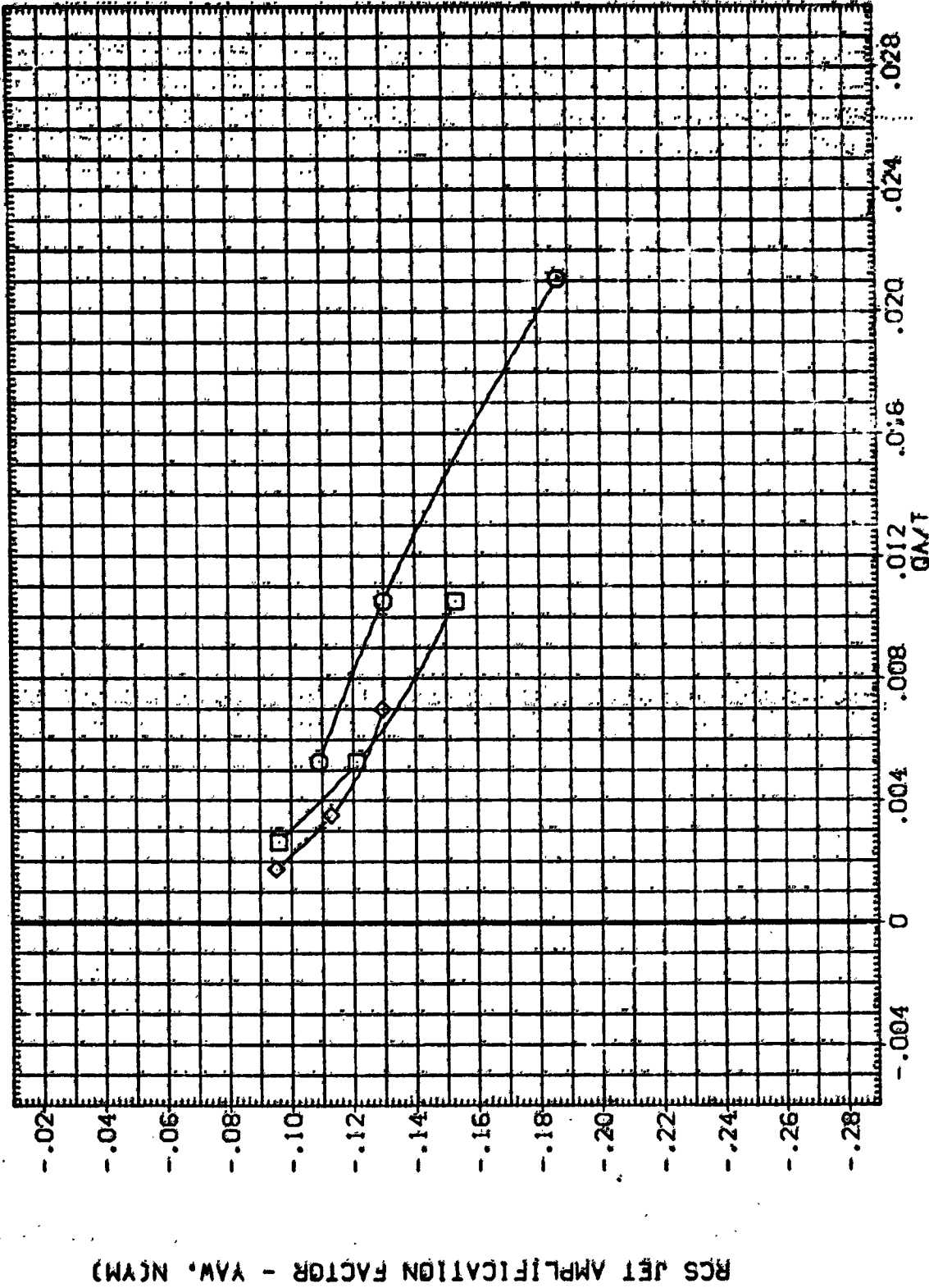


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79, N49, N83

(DIALPHA = -2.00)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(SJA001) Q1N79 LARC CFHT 118 (HA-22)

(SJA002) Q1N49 LARC CFHT 118 (HA-22)

(SJA003) Q1N83 LARC CFHT 118 (HA-22)

ELEVON NO. JET BOFLAP BETA

.000 1.000 .000 .000

.000 2.890 .000 .000

.000 3.090 .000 .000

REFERENCE INFORMATION

SREF 2590.0000 SQ. FT.

LREF 474.8000 INCHES

BREF 936.6800 INCHES

XPRP 1076.7000 IN. X0

YPRP 0.0000 IN. Y0

ZPRP 375.0000 IN. Z0

SCALE .0100

RCS JET AMPLIFICATION FACTOR - YAW, NCM)

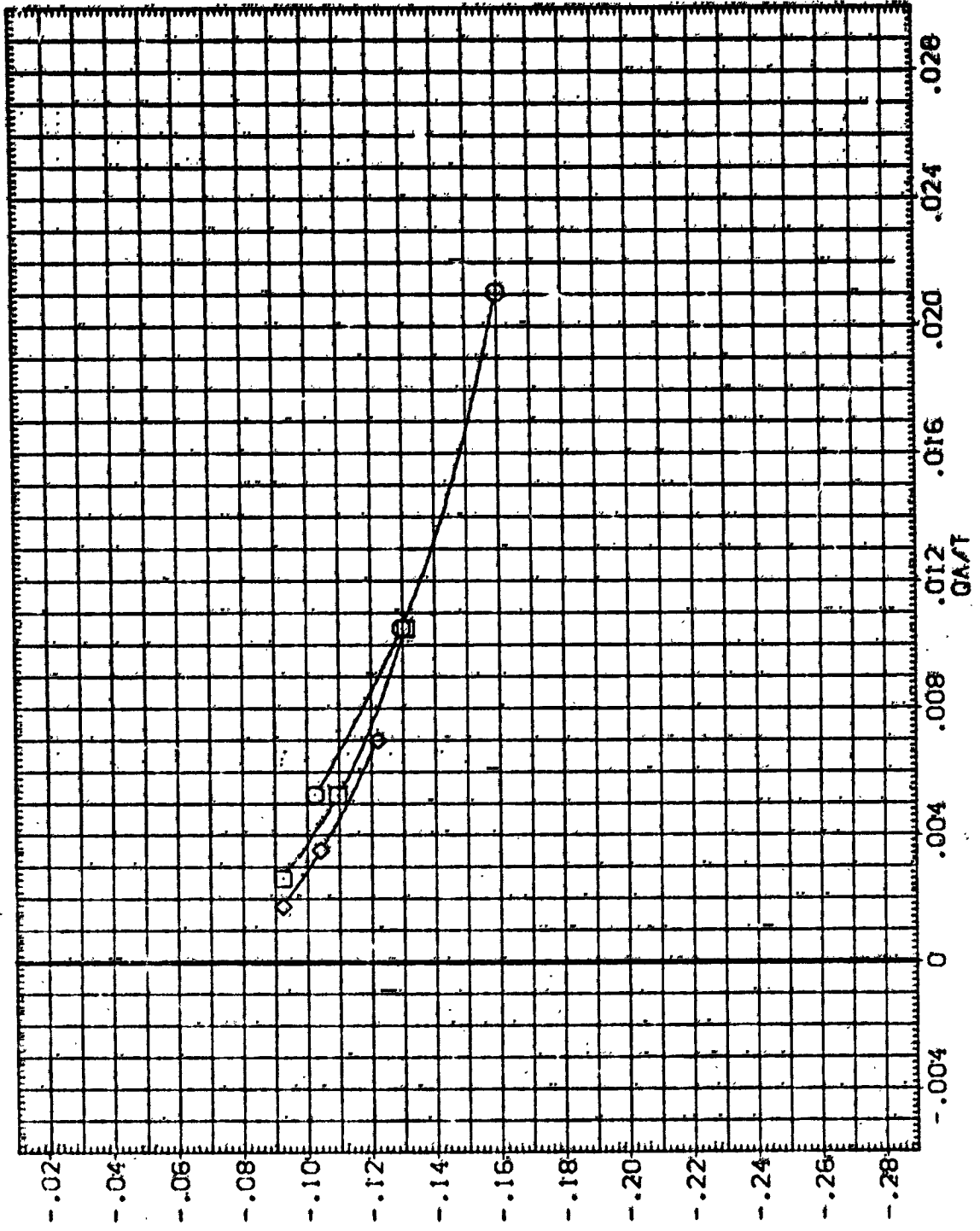


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79,N49,N83

(E1ALPHA = .00

DATA SET SYMBOL
(SJA001)
(SJA002)
(SJA003)

ELEVON NO. JET BETA
.008
1.008
2.008
3.008

REFERENCE INFORMATION
SREF 2690.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.8800 INCHES
XREF 1076.7000 IN. X0
YREF .0000 IN. Y0
ZREF 375.0000 IN. Z0
SCALE .0100

CONFIGURATION DESCRIPTION
QIN/3 LARC CPMT 118 (MA-22)
QIN/3 LARC CPMT 118 (MA-22)
QIN/3 LARC CPMT 118 (MA-22)

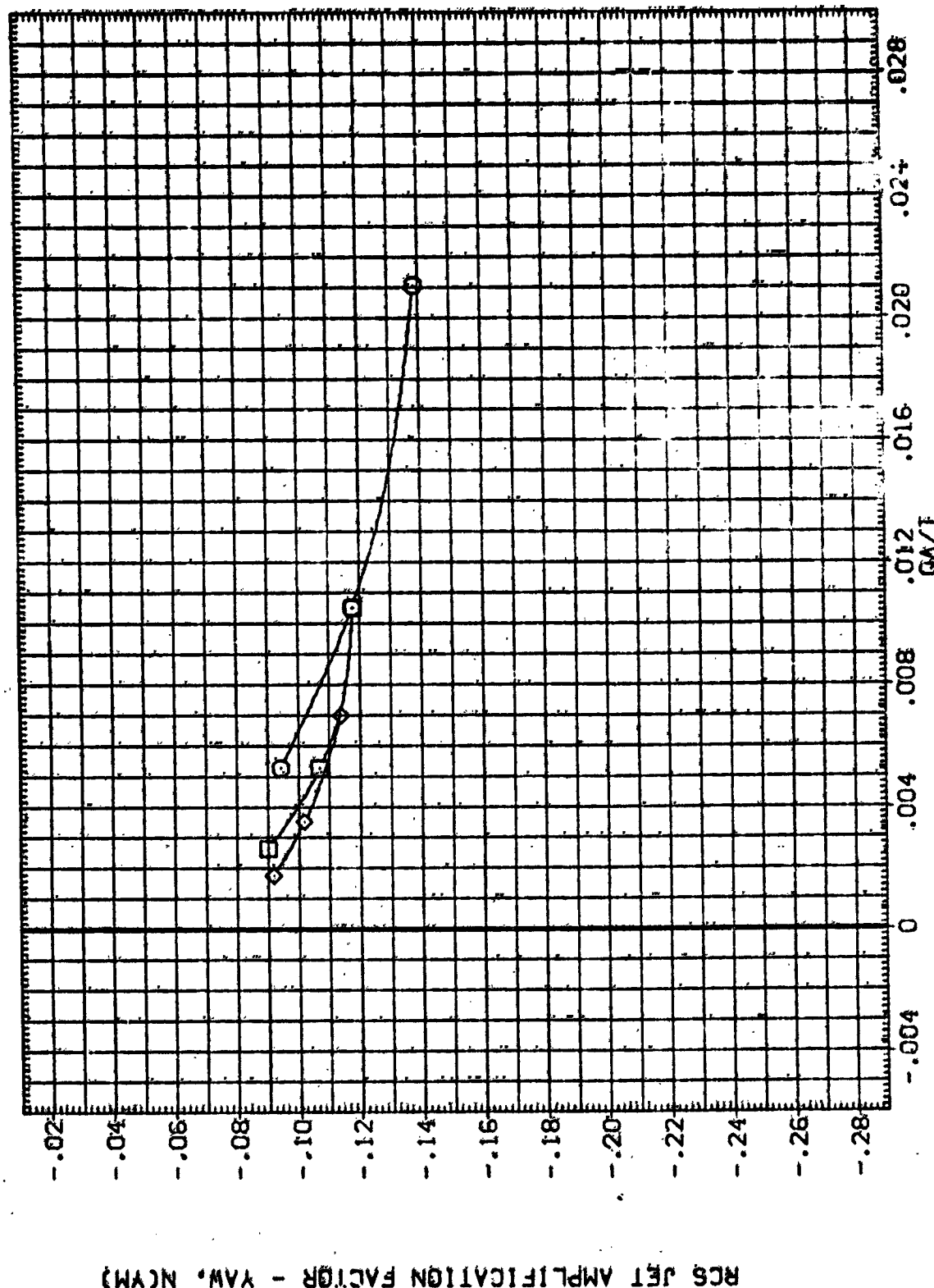


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(F)ALPHA = 2.00

DATA SET SYMBOL
 (SJA001)
 (SJA002)
 (SJA003)

CONFIGURATION DESCRIPTION
 LARC CFT 118 (MA-22)
 LARC CFT 118 (MA-22)
 LARC CFT 118 (MA-22)

ELEVON
 .000
 .000
 .000

NO. JET
 1.000
 2.000
 3.000

BOFLAP
 .000
 .000
 .000

BETA
 .000
 .000
 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LAREF 474.8000 INCHES
 BREF 536.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

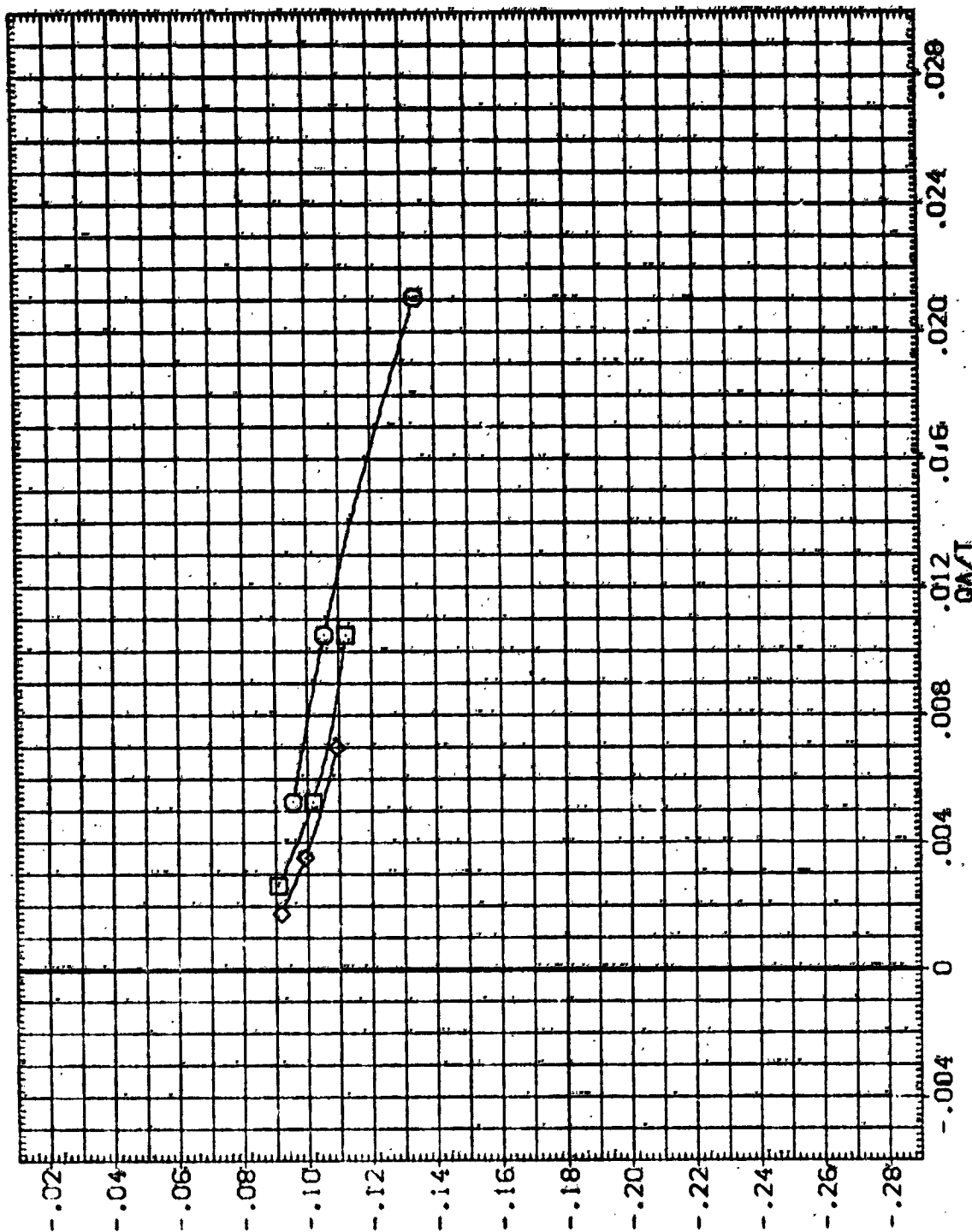


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79.N49.N83

(G)ALPHA = 4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJ0001) 1 LARC CFHT 118 (MA-22)
 (SJ0002) 1 LARC CFHT 118 (MA-22)
 (SJ0003) 1 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP SETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.0000 INCHES
 BREF 938.6800 INCHES
 XMRP 1078.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - YAW, NCM)

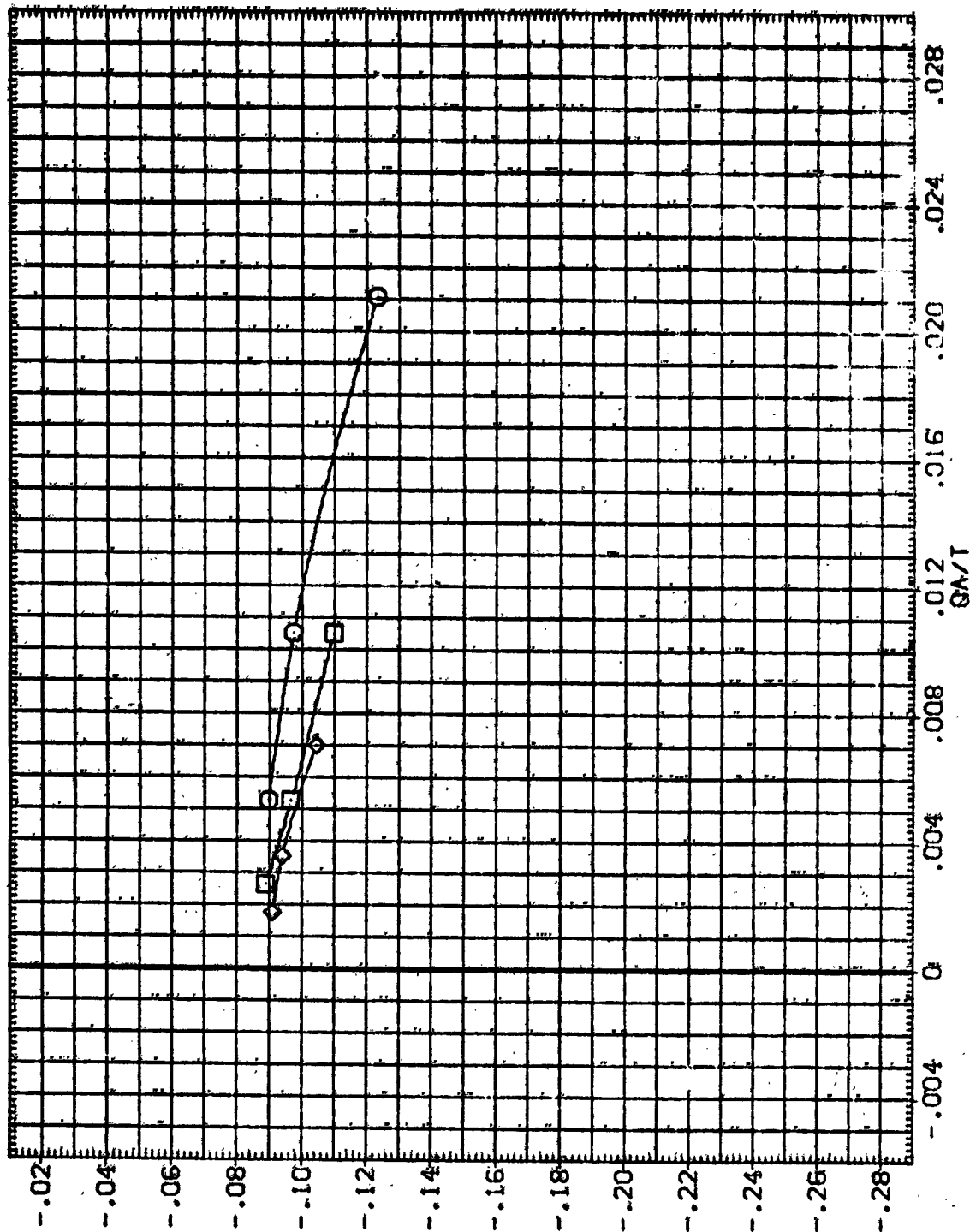


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79.N49.N83

(H)ALPHA = 6.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA003)	QUIN79 LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 SQ.FT.
(SJA002)	QUIN49 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA003)	QUIN93 LARC CFMT 118 (MA-22)	.000	3.000	.800	.000	BREF 936.6000 INCHES
						XPREF 1076.7000 IN. YD
						VMREF .0000 IN. YD
						ZMREF .0000 IN. YD
						SCALE .0100

RCS JET AMPLIFICATION FACTOR - YAW, NCYM)

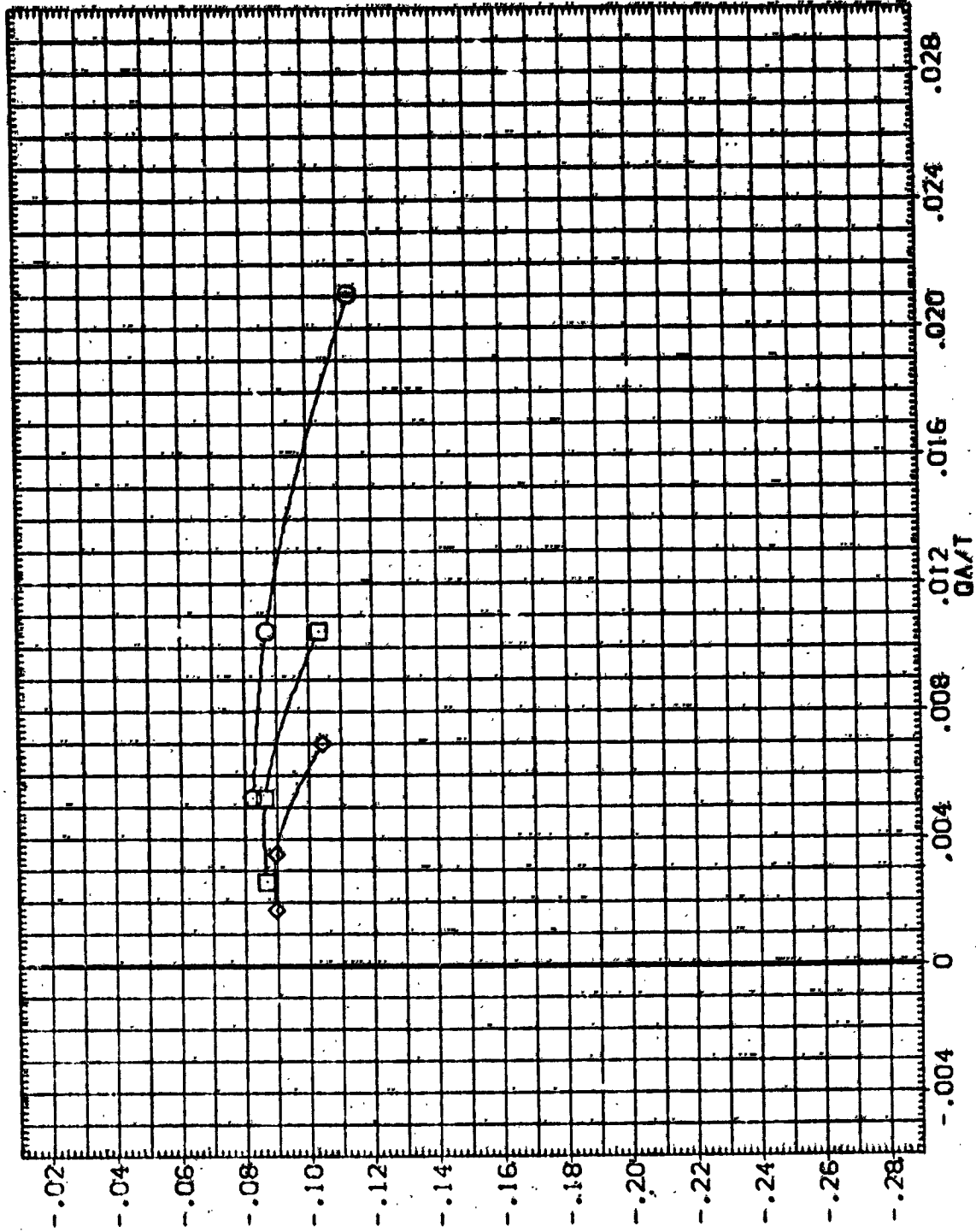


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79.N49.N83

(ALPHA = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) QIN79 LARC CFMT 118 (MA-22)
 (SJA002) QIN45 LARC CFMT 118 (MA-22)
 (SJA003) QIN83 LARC CFMT 118 (MA-22)

ELEVON NO. JET BDF LAP BETA REFERENCE INFORMATION
 .000 1.000 .000 .000 SREF 2630.0000 SO. FT.
 .000 2.000 .000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 .000 BREF 936.6800 INCHES
 YREF 1076.7000 IN. 10
 ZREF 375.0000 IN. 10
 SCALE .0100

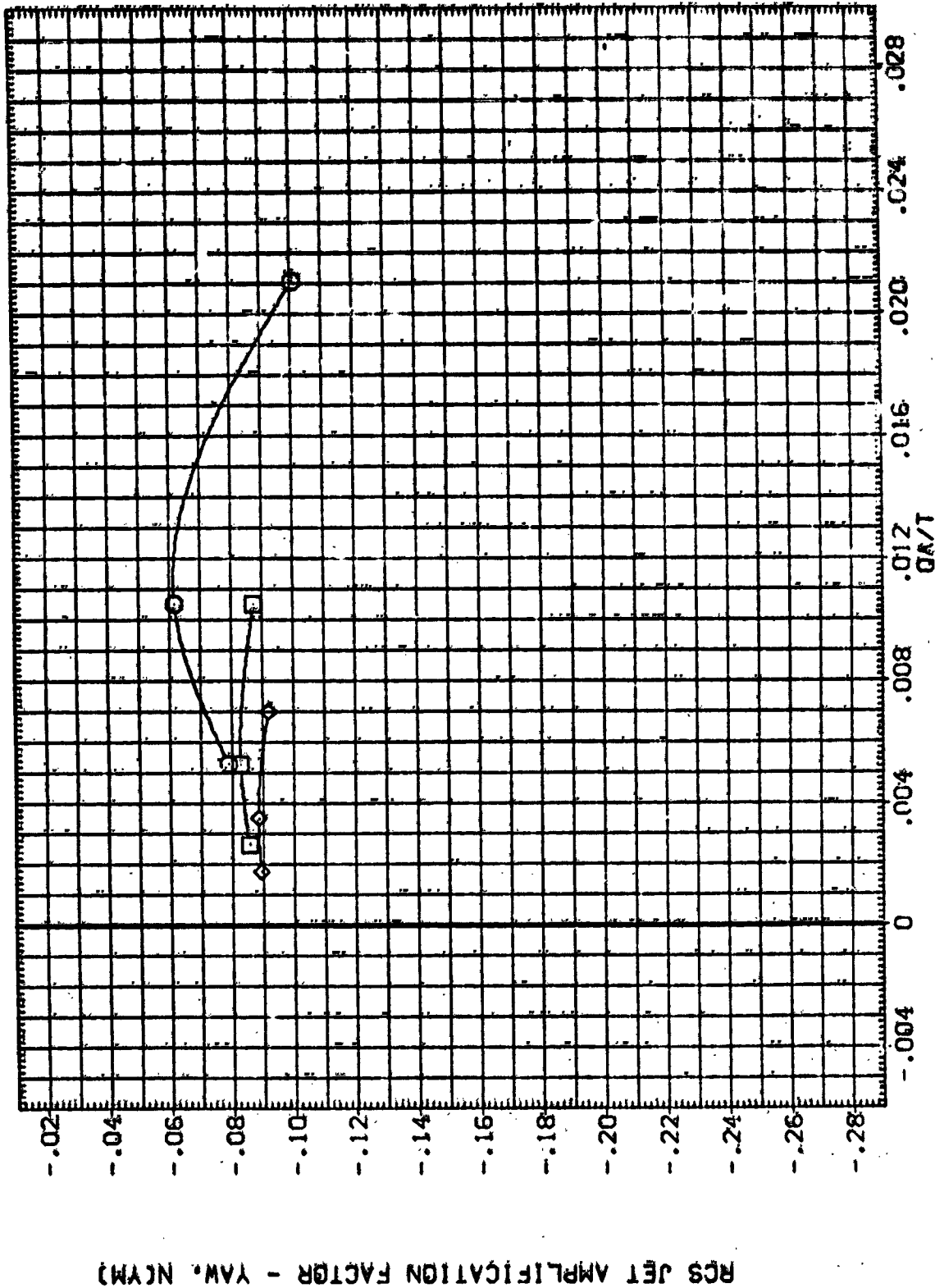


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.N49.N83

(J)ALPHA = 10.00

DATA SET SYMBOL
(SJA001)
(SJA002)
(SJA003)

CONFIGURATION DESCRIPTION
Q1A79 LARC CFHT 118 (MA-221)
Q1A95 LARC CFHT 118 (MA-221)
Q1A83 LARC CFHT 118 (MA-221)

ELEVON NO. JET BOFLAP SETA
.008 1.000 .000 .000
.000 2.000 .000 .000
.000 3.000 .000 .000

REFERENCE INFORMATION
SREF 2630.0000 SD.FT.
LREF 474.8000 INCHES
BREF 936.5000 INCHES
XREF 1076.7000 IN. IN
YREF .0000 IN. IN
ZREF 375.0000 IN. IN
SCALE .0100

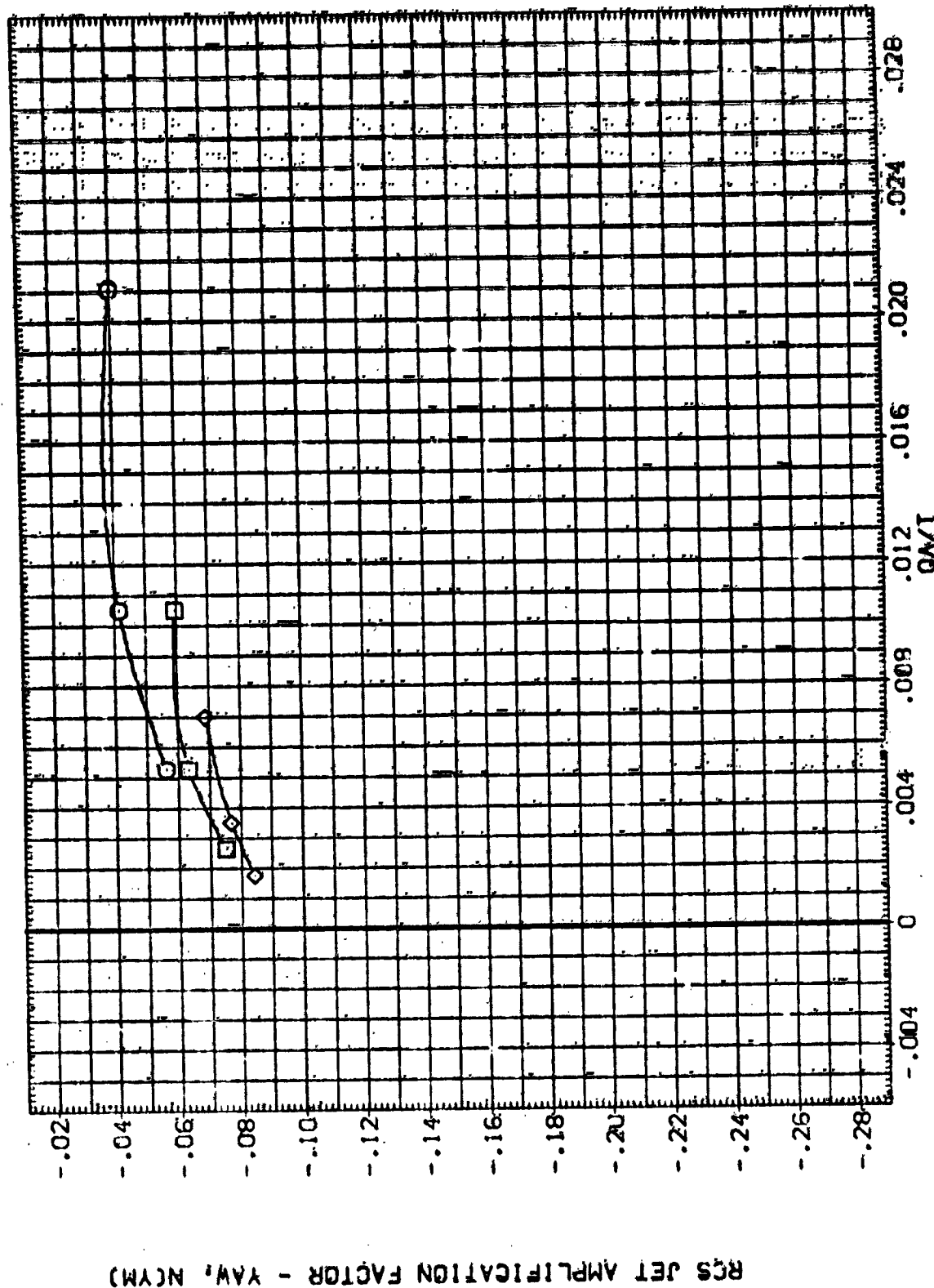


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.N49.N83

(K)ALPHA = 15.00

DATA SET SYMBOL: 01N79 01N49 01N83
 CONFIGURATION DESCRIPTION: LARC CFHT 118 (MA-22)
 LARC CFHT 118 (MA-22)
 LARC CFHT 118 (MA-22)
 REFERENCE IN QUANTITY: 2650.0000 59.5 FT.
 474.8000 INCHES
 936.6800 INCHES
 1076.7000 IN. KG
 375.0000 IN. KG
 SCALE: 0.0100

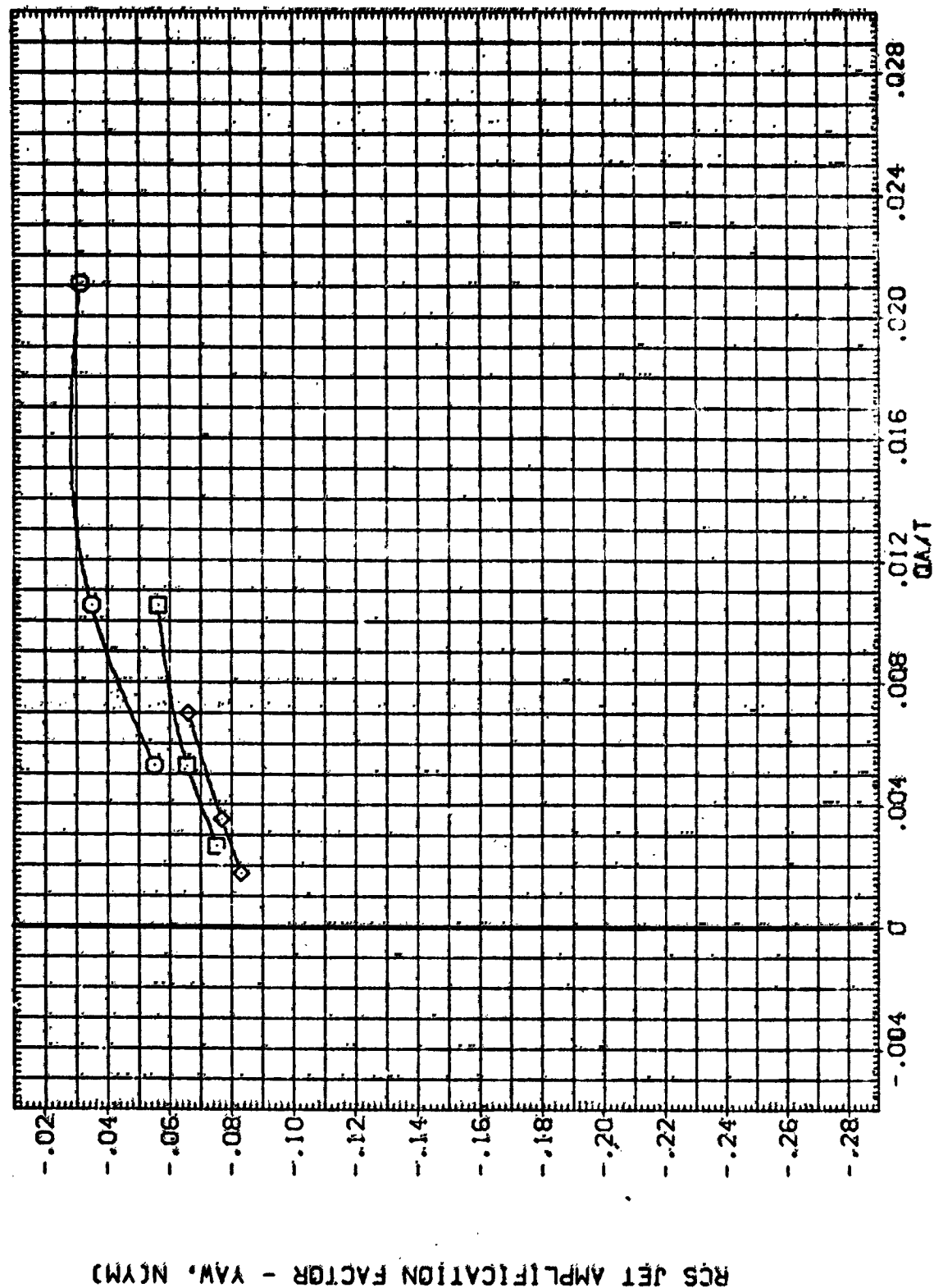


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(L)ALPHA = 20.00

DATA SET SYMBOL: (SJAG01) (SJAG02) (SJAG03)

CONFIGURATION DESCRIPTION: LARC CEHT 118 (MA-22) LARC CEHT 118 (MA-22) LARC CEHT 118 (MA-22)

ELEVON: .000 .000 .000

NO. JET: 1.000 2.000 3.000

BOTFLAP: .000 .000 .000

BETA: .000 .000 .000

REFERENCE INFORMATION: SREF 2690.0000 SO. FT. 4 LREF 474.8000 INCHES 2 BREF 935.6800 INCHES 3 XMRP 1076.7000 IN. YD YMRP .0000 IN. YD ZMRP .0000 IN. YD SCALE 175.0000 IN. ZD

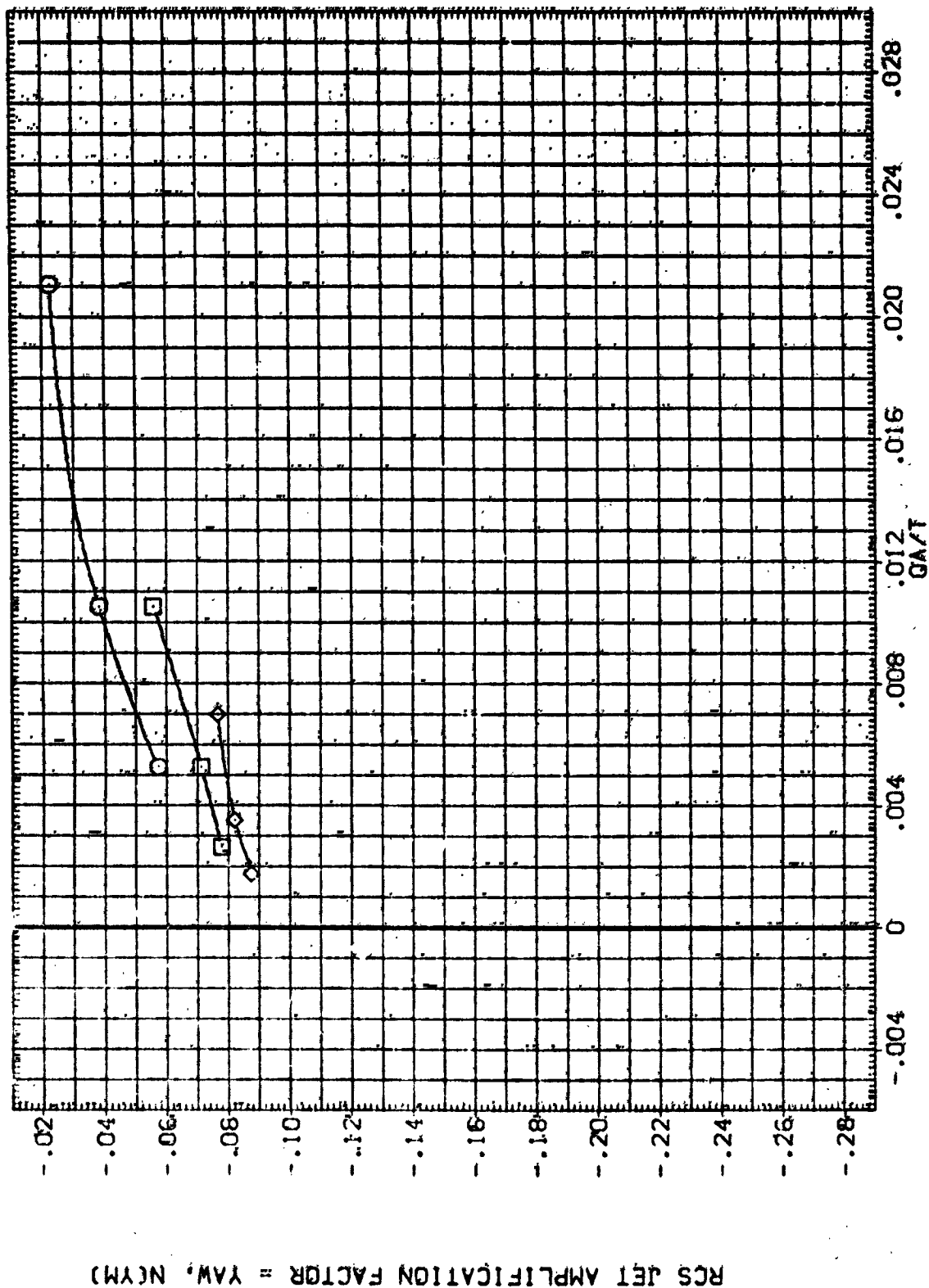


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79, N49, N83

(MXALPHA = 25.00)

DATA SET SYMBOL LONG INFORMATION DESCRIPTION
 (SJ001) 8
 (SJ002) 8
 (SJ003) 8
 Q1N73 LARC CFMT 118 (MA-22)
 Q1N83 LARC CFMT 118 (MA-22)
 Q1N83 LARC CFMT 118 (MA-22)

ELEVATION MUL.JUG1 WDF-LDF WDF-HI
 .060 .000 .000
 .060 .000 .000
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000
 SREF 2650.0000 SO.FT.
 LREF 474.8000 INCHES
 BREF 936.5800 INCHES
 YREF 1076.7000 IN. Y0
 YREF 375.0000 IN. Y0
 ZREF .0100 SCALE

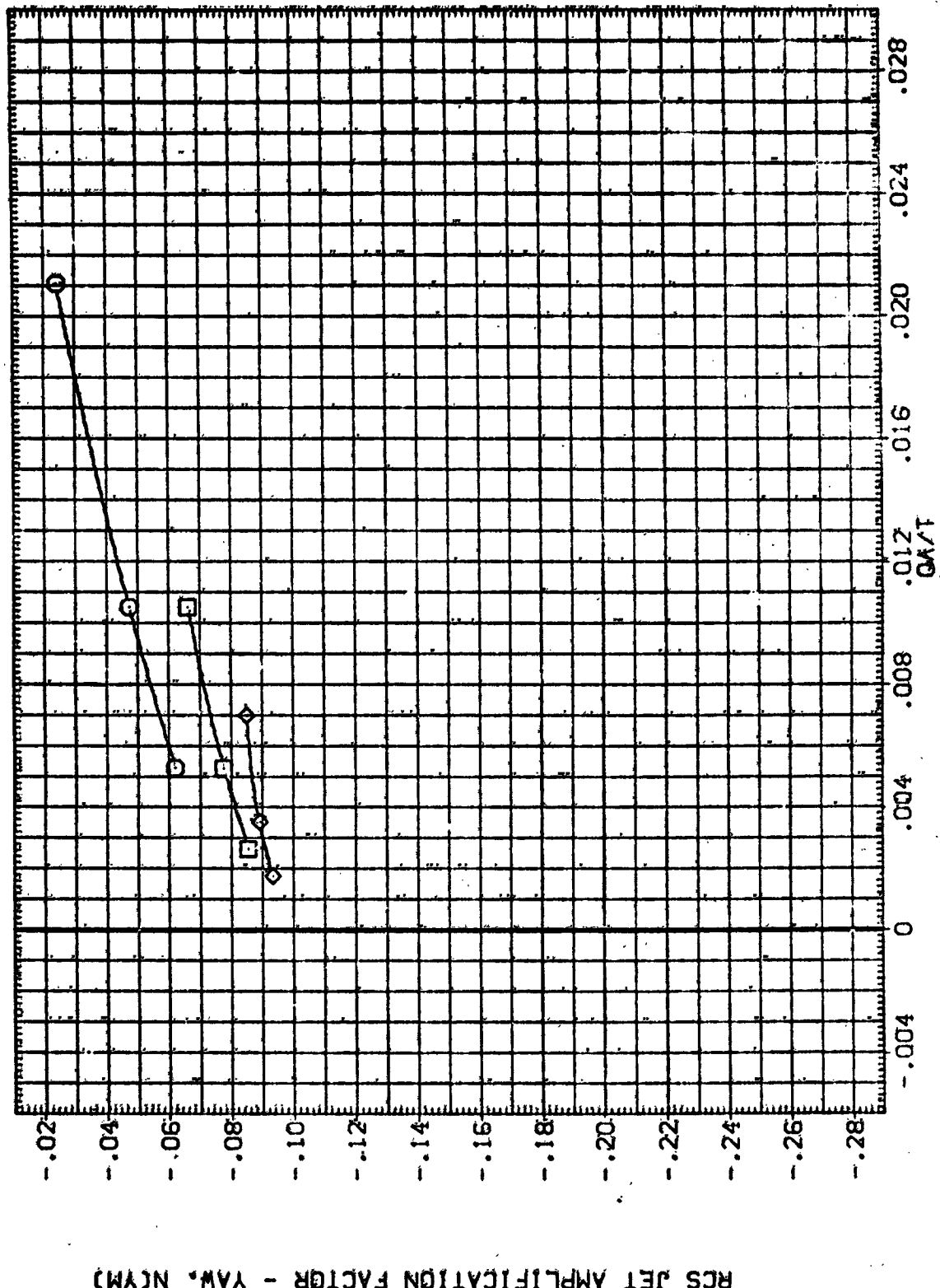


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N73,N49,N83

(N)ALPHA = 30.00

REFERENCE INFORMATION	
	SO. FT. INCHES IN. XIN. IN. YIN. IN. ZIN.
SREF	2630.0000
LREF	4794.8000
BREF	936.6800
XTRP	1076.7000
YTRP	.0000
ZTRP	375.0000
SCALE	.0100

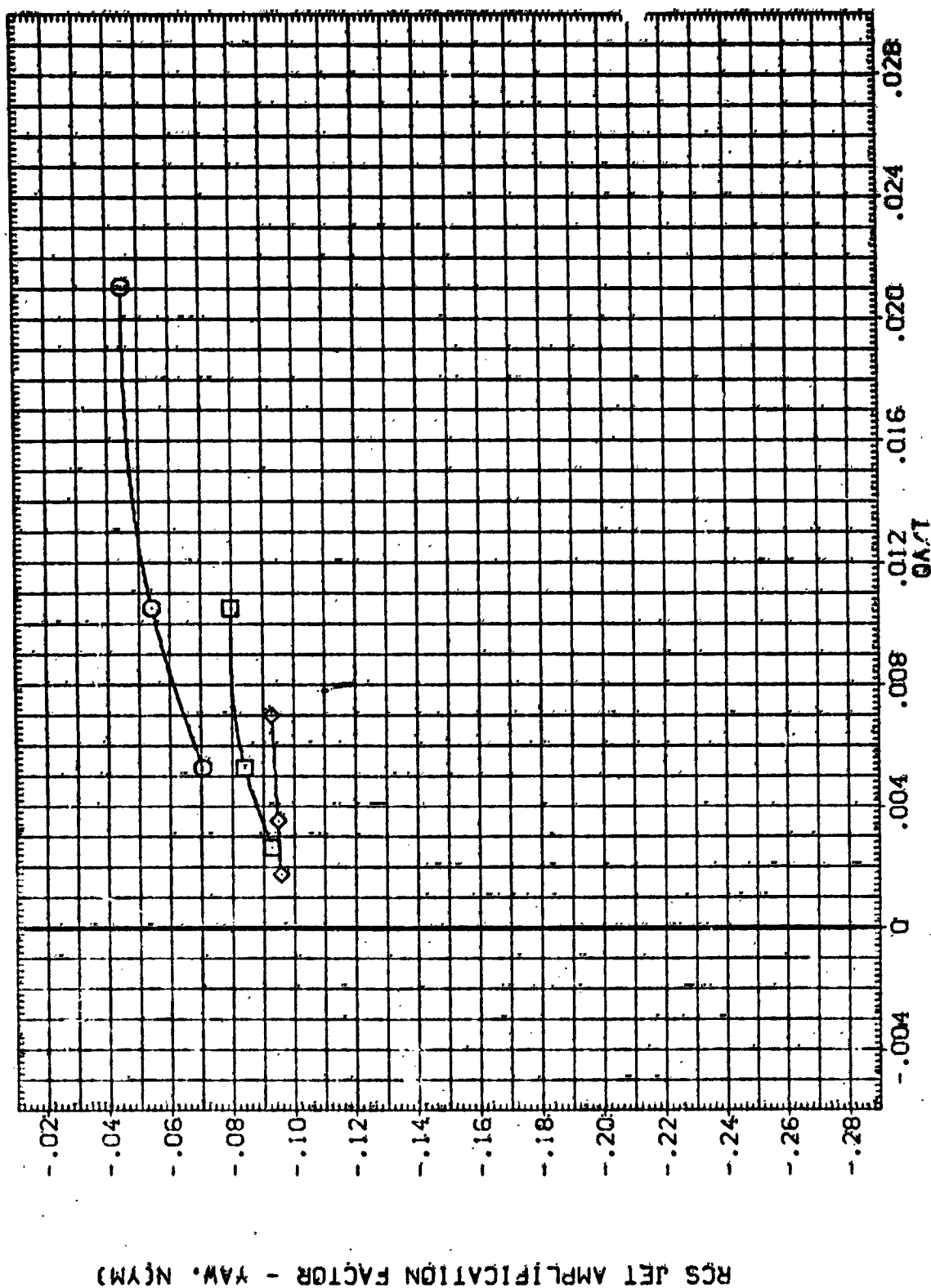


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79-N49-N83

$$(O)ALPHA = 35.00$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(SJA001)	Q1N09	LARC CFHT 118 (MA-22)
(SJA002)	Q1N09	LARC CFHT 118 (MA-22)
(SJA003)	Q1N09	LARC CFHT 118 (MA-22)

ELEVATION .000 .000 .000
 NO. JET 1.000 2.000 3.000
 WIND-AP .000 .000 .000
 WIND .000 .000 .000
 REFERENCE TO WIND UNIT
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6000 INCHES
 XMRP 1076.7000 IN. TO
 YMRP .0000 IN. TO
 ZMRP 375.0000 IN. TO
 SCALE .0100

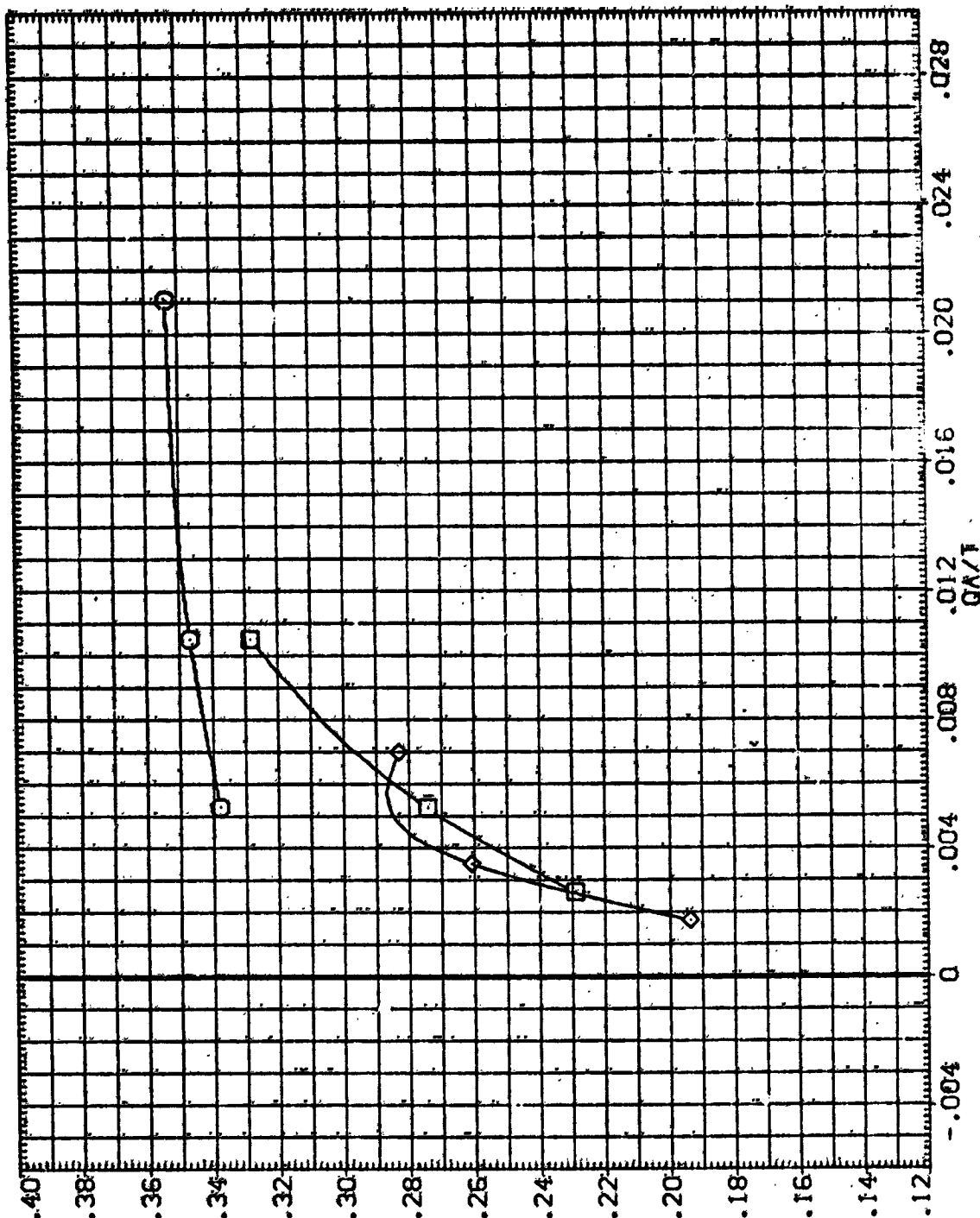


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(A) ALPHA = -8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(SJA001)	LARC CFHT 118 (MA-22)
(SJA002)	LARC CFHT 118 (MA-22)
(SJA003)	LARC CFHT 118 (MA-22)

REFERENCE INFORMATION

REFERENCE INFORMATION	SO. FT.
SREF	2690.0000
LREF	474.8000
BREF	936.6800
XMRP	1076.7000
YMRP	375.0000
ZMRP	375.0000
SCALE	.0100

ELEVON NO. JET BDELAP BETA

ELEVON	NO. JET	BDELAP	BETA
.000	1.000	.000	.000
.080	2.000	.000	.000
.080	3.000	.000	.080

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

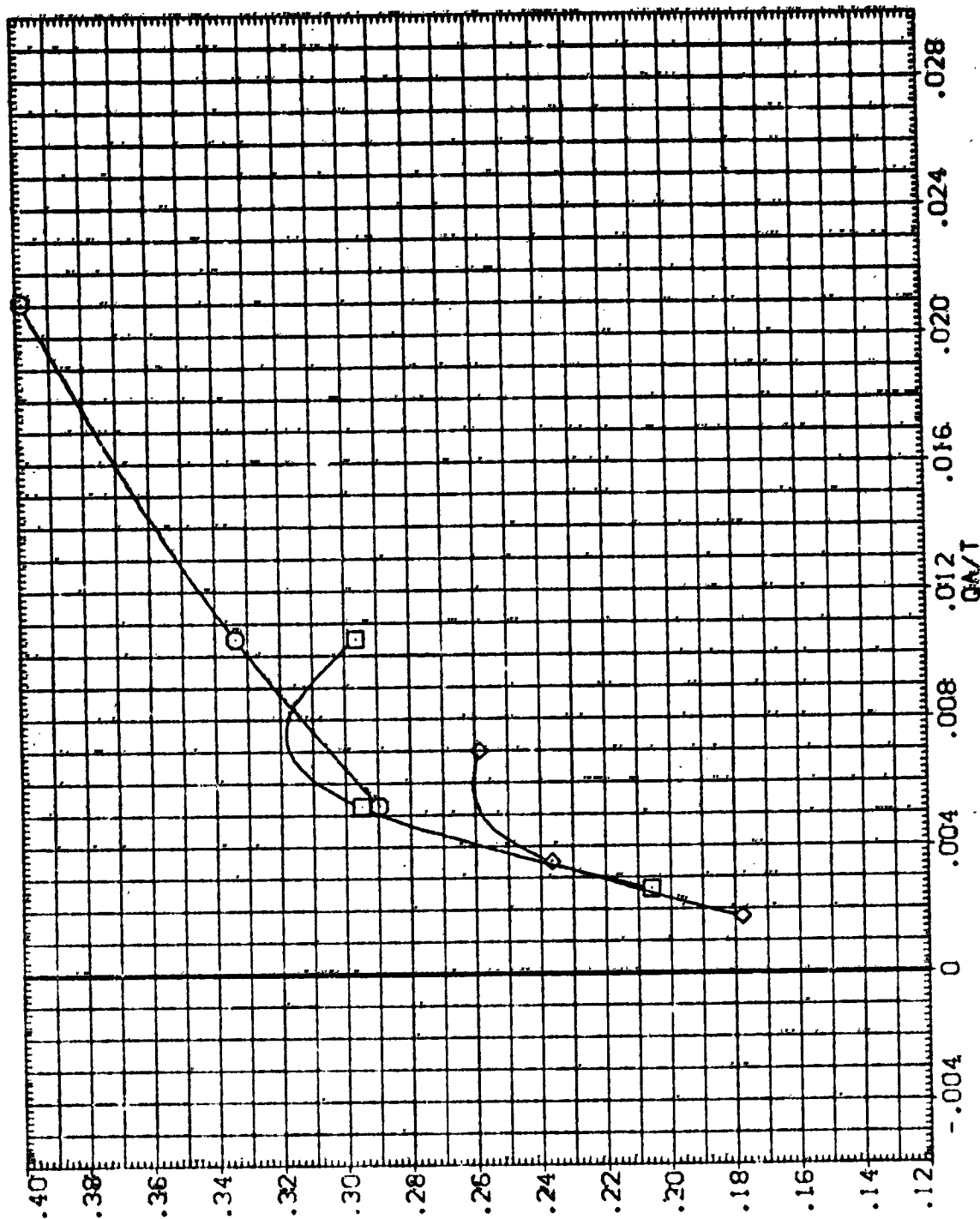


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(B) ALPHA = -6.00

DATA SET SYMBOL: (SJA001), (SJA002), (SJA003)
 CONFIGURATION DESCRIPTION: LARC CENT 118 (NA-22), LARC CENT 118 (NA-22), LARC CENT 118 (NA-22)

ELEVON NO. JET BOFLAP BETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION
 SREF 2650.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XPRP 1076.7000 IN. YD
 YPRP .0000 IN. YD
 ZPRP 325.0000 IN. YD
 SCALE .0100

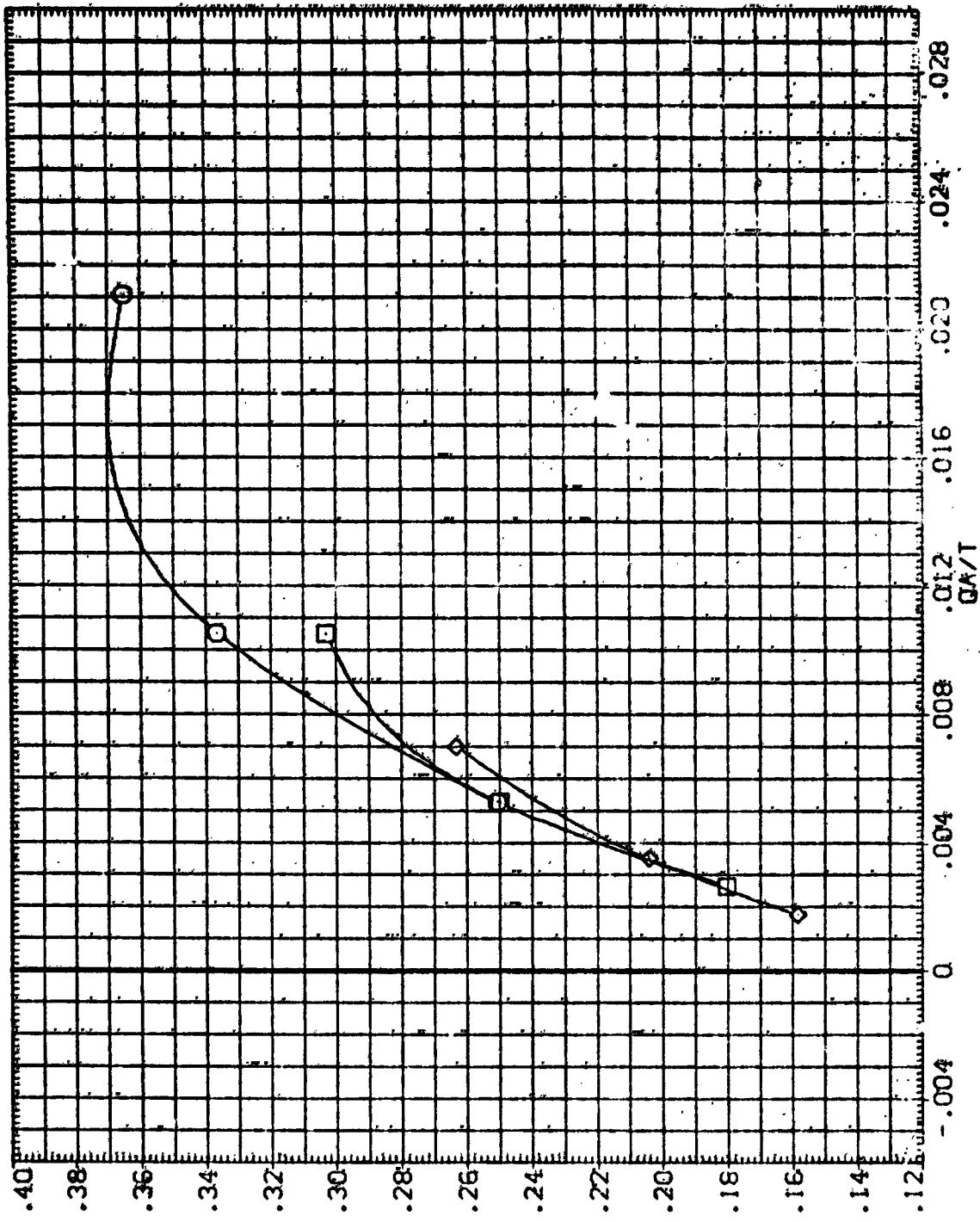


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79,N49,N83

(C)ALPHA = -4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(SMA001)	01N79 LARC CFHT 118 (MA-22)
(SMA002)	01N49 LARC CFHT 118 (MA-22)
(SMA003)	01N23 LARC CFHT 118 (MA-22)

ELEVON NB-JET BDFLA² BETA

ELEVON	NB-JET	BDFLA ²	BETA
.000	1.000	.000	.000
.000	2.000	.000	.000
.000	3.000	.000	.000

REFERENCE INFORMATION

SRF	LRP	BRP	VRP	ZRP	SCALE
2590.0000	474.8000	936.6800	1076.7000	373.0000	.0100

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

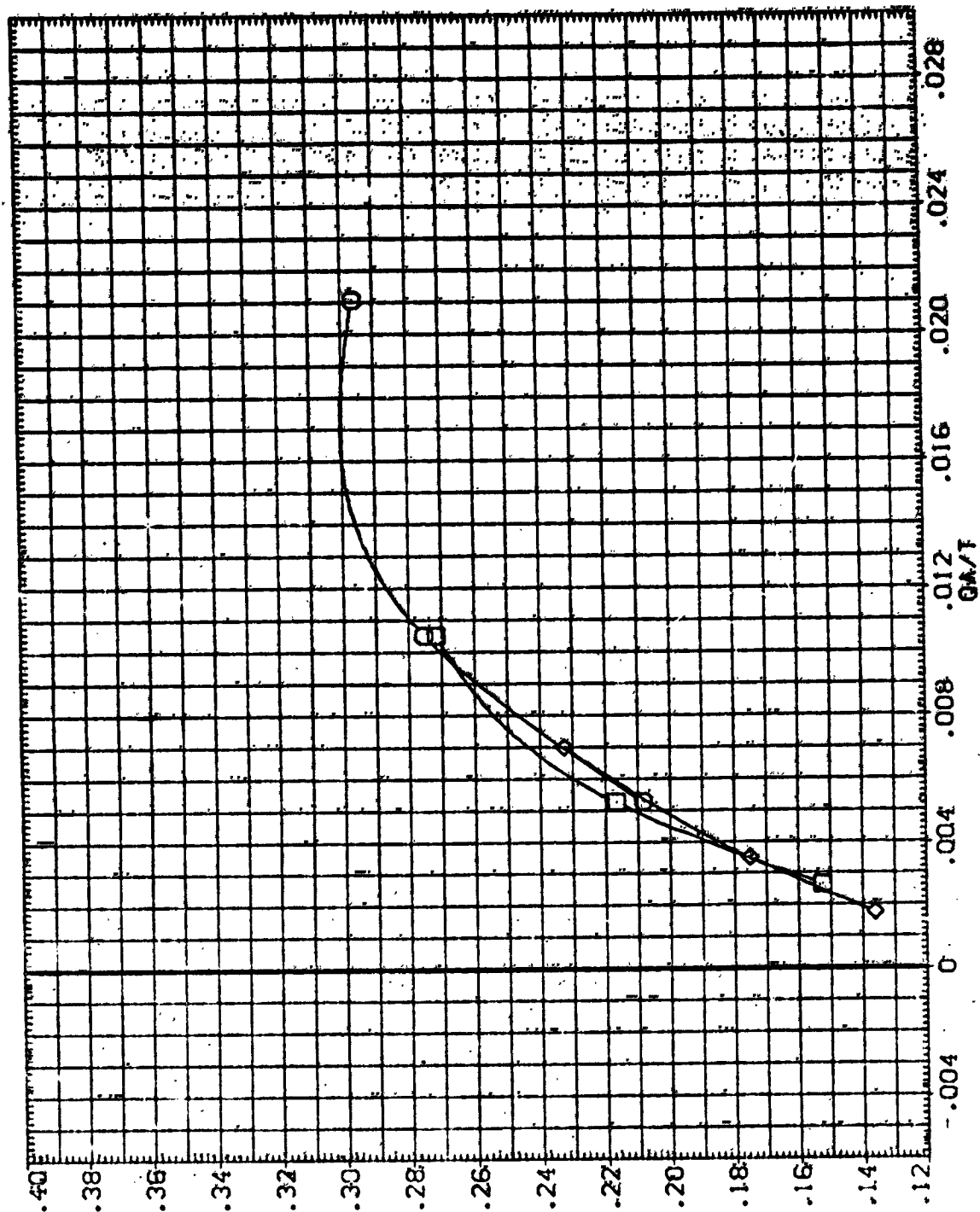


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79,N49,N83

(O)ALPHA = -2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (S1A001) 01N79 LARC CFHT 118 (MA-22)
 (S1A002) 01N49 LARC CFHT 118 (MA-22)
 (S1A003) 01N83 LARC CFHT 118 (MA-22)

ELEVON NO. JET 80F LAP BETA REFERENCE INFORMATION
 .000 1.000 .000 .000 SREF 2630.0000 SO. FT.
 .000 2.000 .000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 .000 SREF 926.6800 INCHES
 XMRP 1076.7000 IN. TO
 YMRP .0000 IN. TO
 ZMRP 375.0000 IN. TO
 SCALE .0100

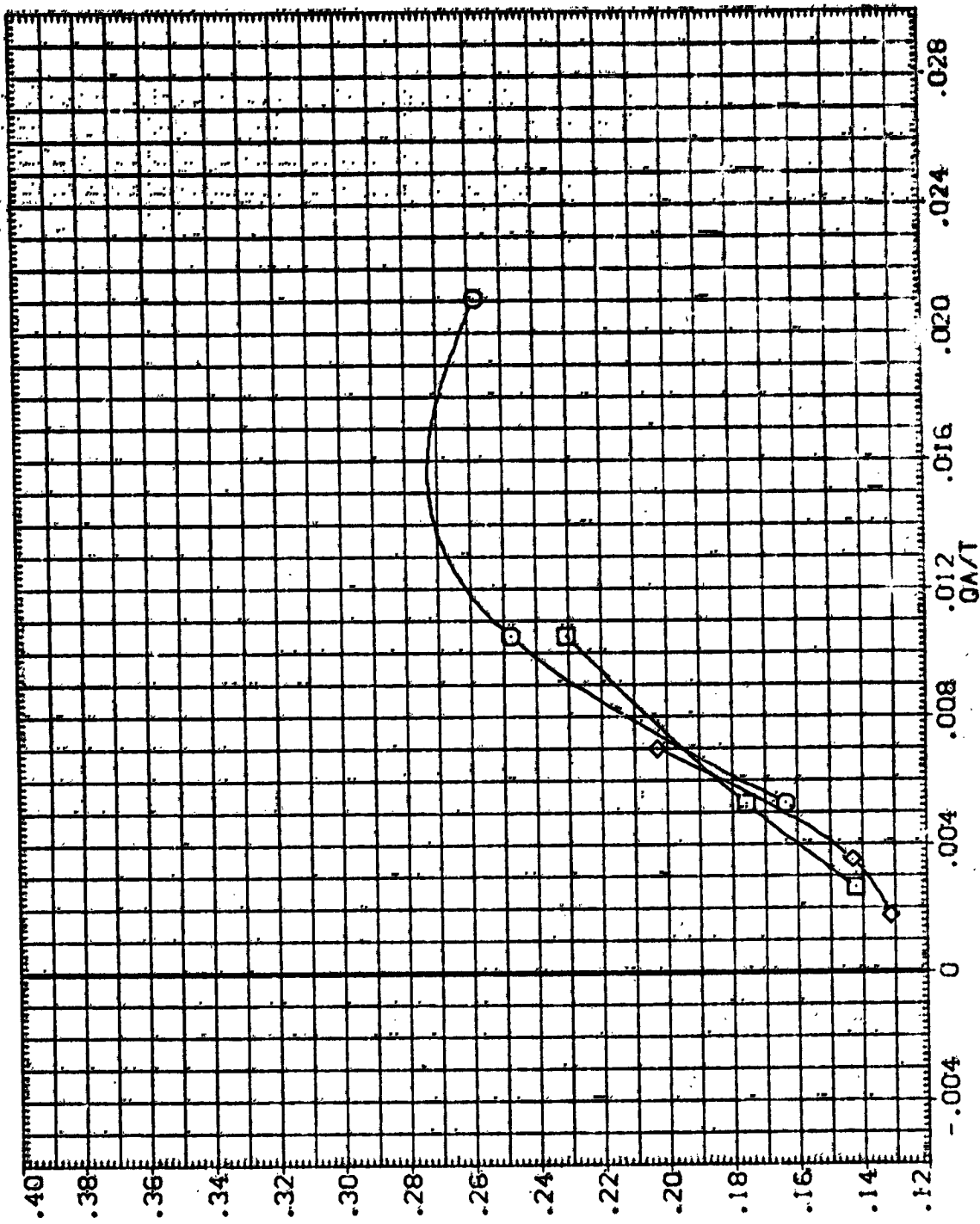


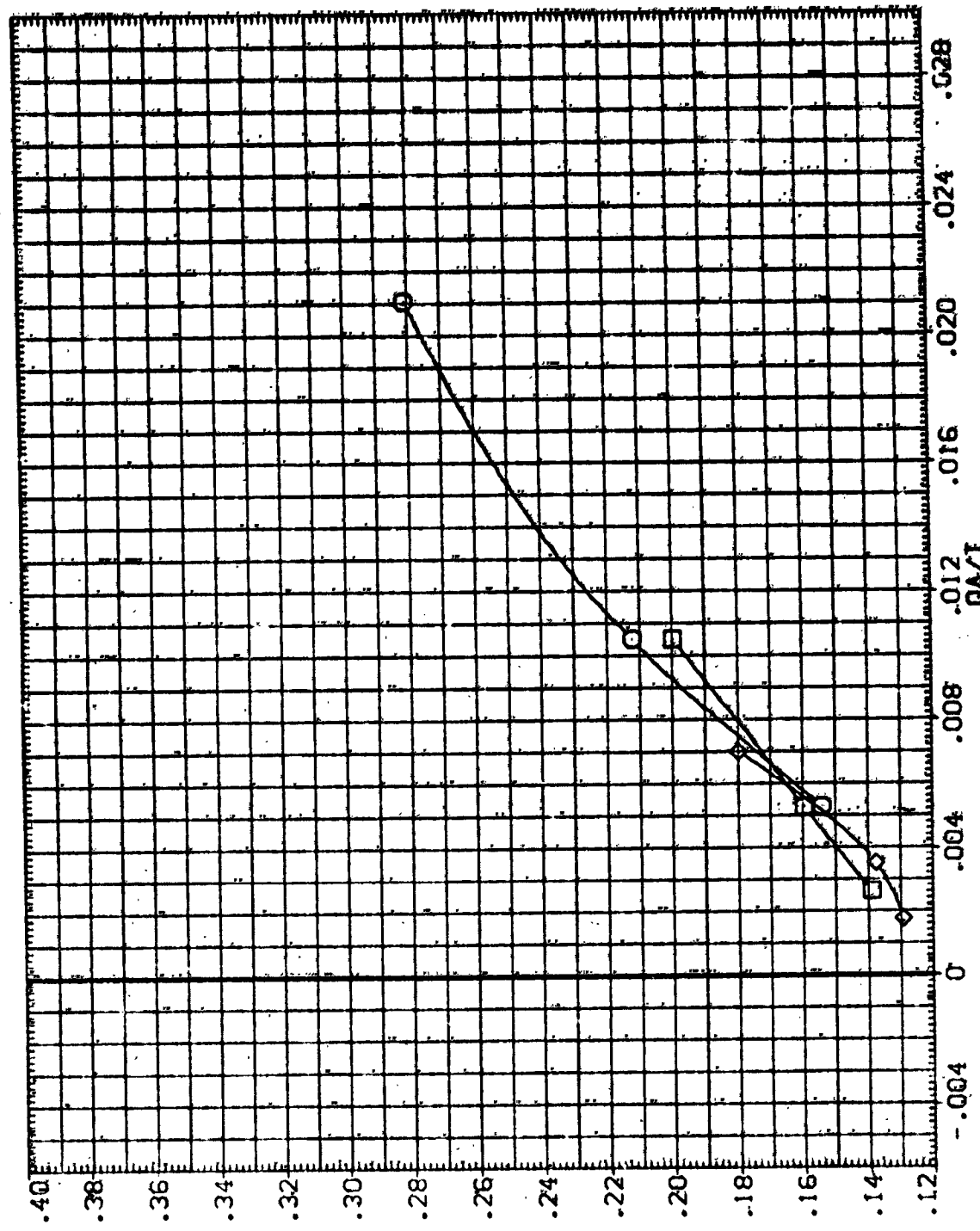
FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(E) ALPHA = .00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) LARC CFHT 118 (MA-22)
 (SJA002) LARC CFHT 118 (MA-22)
 (SJA003) LARC CFHT 118 (MA-22)

ELEVON NO JET BOFLAP BETA
 .000 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

REFERENCE INFORMATION
 SREF 2630.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 935.6800 INCHES
 XREF 1076.7000 IN. XG
 YREF .0000 IN. YG
 ZREF 375.5000 IN. ZG
 SCALE .0100



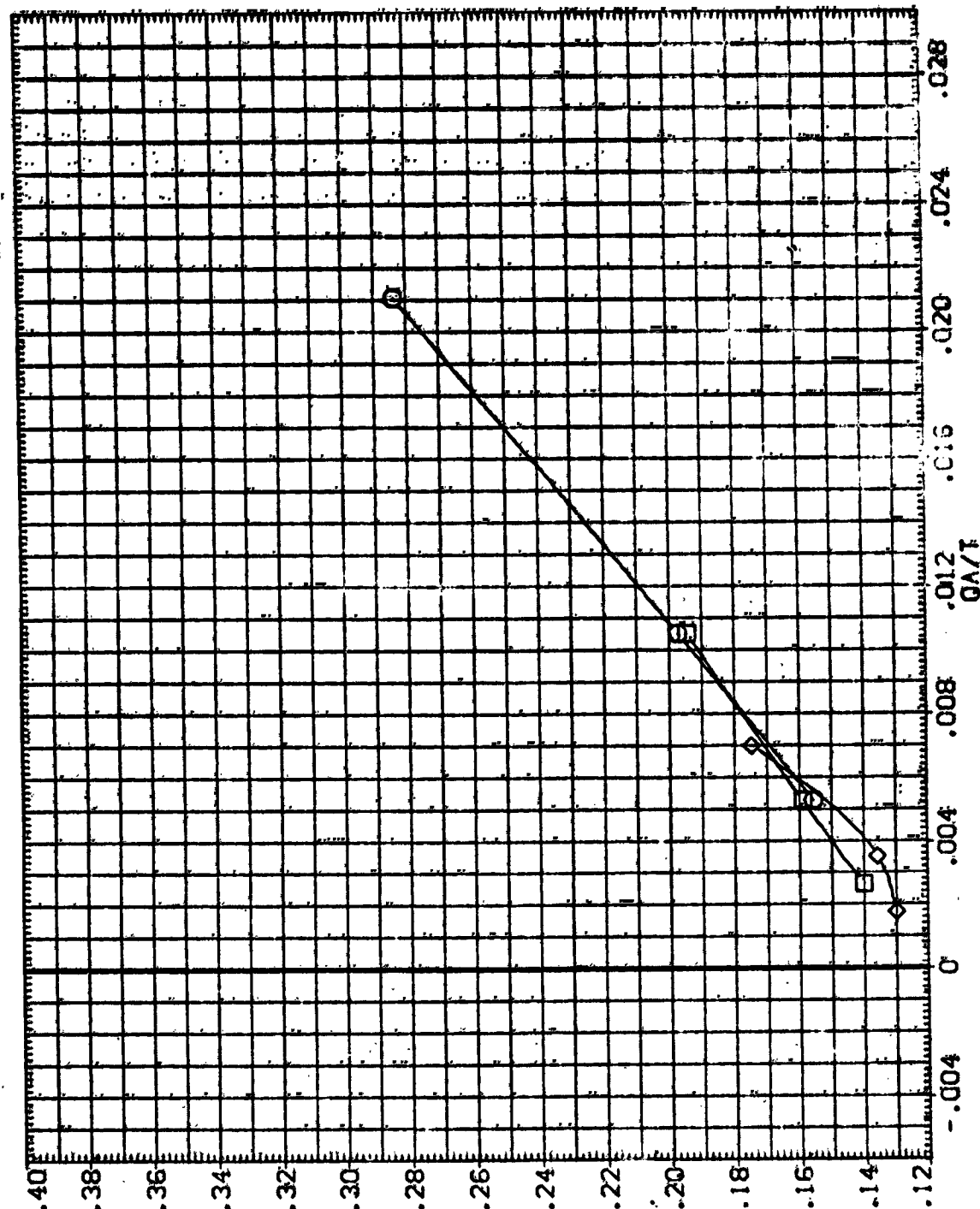
RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NCSF

FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79,N49,N83

(F)ALPHA = 2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJAD01) Q1N79 LARC CFHT 118 (NA-22)
 (SJAD02) Q1N49 LARC CFHT 118 (NA-22)
 (SJAD03) Q1N83 LARC CFHT 118 (NA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2690.0000 SQ. FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 BREF 936.6800 INCHES
 WREF 1076.7000 IN. 10
 WREF 375.0000 IN. 10
 ZREF 375.0000 IN. 20
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, (NSF)

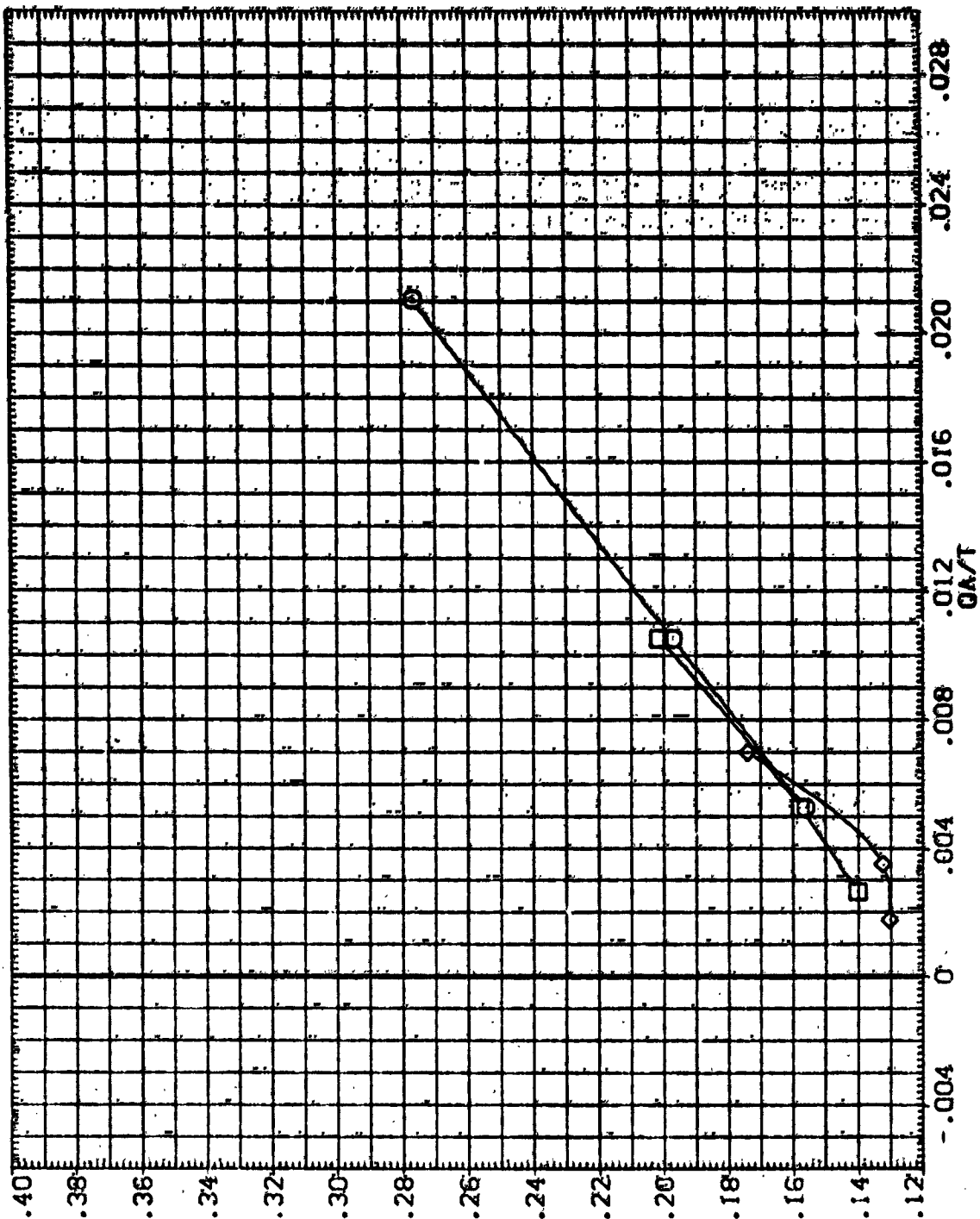
FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(G) ALPHA = 4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) 01N09 LARC CFMT 118 (MA-22)
 (SJA002) 01N49 LARC CFMT 118 (MA-22)
 (SJA003) 01N83 LARC CFMT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA
 .008 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

REFERENCE INFORMATION
 SREF 2630.0000 SL.FT.
 LREF 474.8000 INCHES
 BREF 516.6000 INCHES
 XREF 1076.7000 IN. RG
 YREF .0000 IN. YB
 ZREF 375.0000 IN. ZB
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NCSF

FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.N49.N83

(H)ALPHA = 6.00

DATA SET SYMBOL: (SJA001) (SJA002) (SJA003)

CONFIGURATION DESCRIPTION: LARC CFHT 118 (MA-22) LARC CFHT 118 (MA-22) LARC CFHT 118 (MA-22)

ELEVON: .000 .000 .000

NO. JET: 1.000 2.000 3.000

BOFLAP: .000 .000 .000

BETA: .000 .000 .000

REFERENCE INFORMATION: SREF: 2630.0000 50.000 INCHES LREF: 1874.0000 50.000 INCHES BREF: 535.0000 50.000 INCHES YZRP: 1075.7000 50.000 IN. VS ZYRP: 375.0000 50.000 IN. VS SCALE: .0100

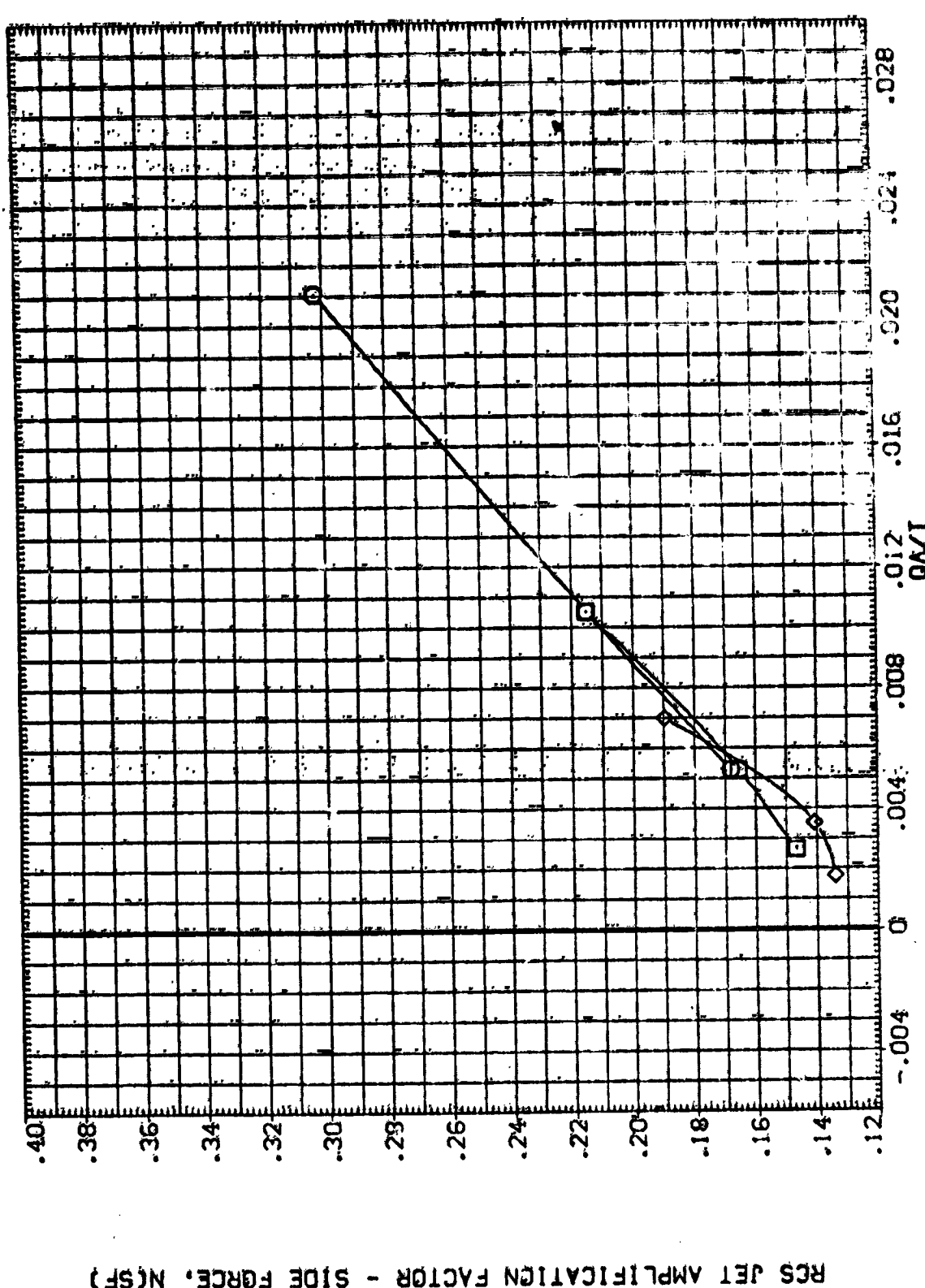


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. 79-N19-183

(ALPHA = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) LARC CFHT 118 (NA-22)
 (SJA002) LARC CFHT 118 (NA-22)
 (SJA003) LARC CFHT 118 (NA-22)

ELEVON NO JET BOFL/A BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2690.0000 SQ.FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 BREF 936.6800 INCHES
 .000 .000 .000 XREF 1076.7000 IN. 2D
 .000 .000 .000 YREF .0000 IN. YD
 .000 .000 .000 ZREF 375.0000 IN. ZD
 .000 .000 .000 SCALE .0100

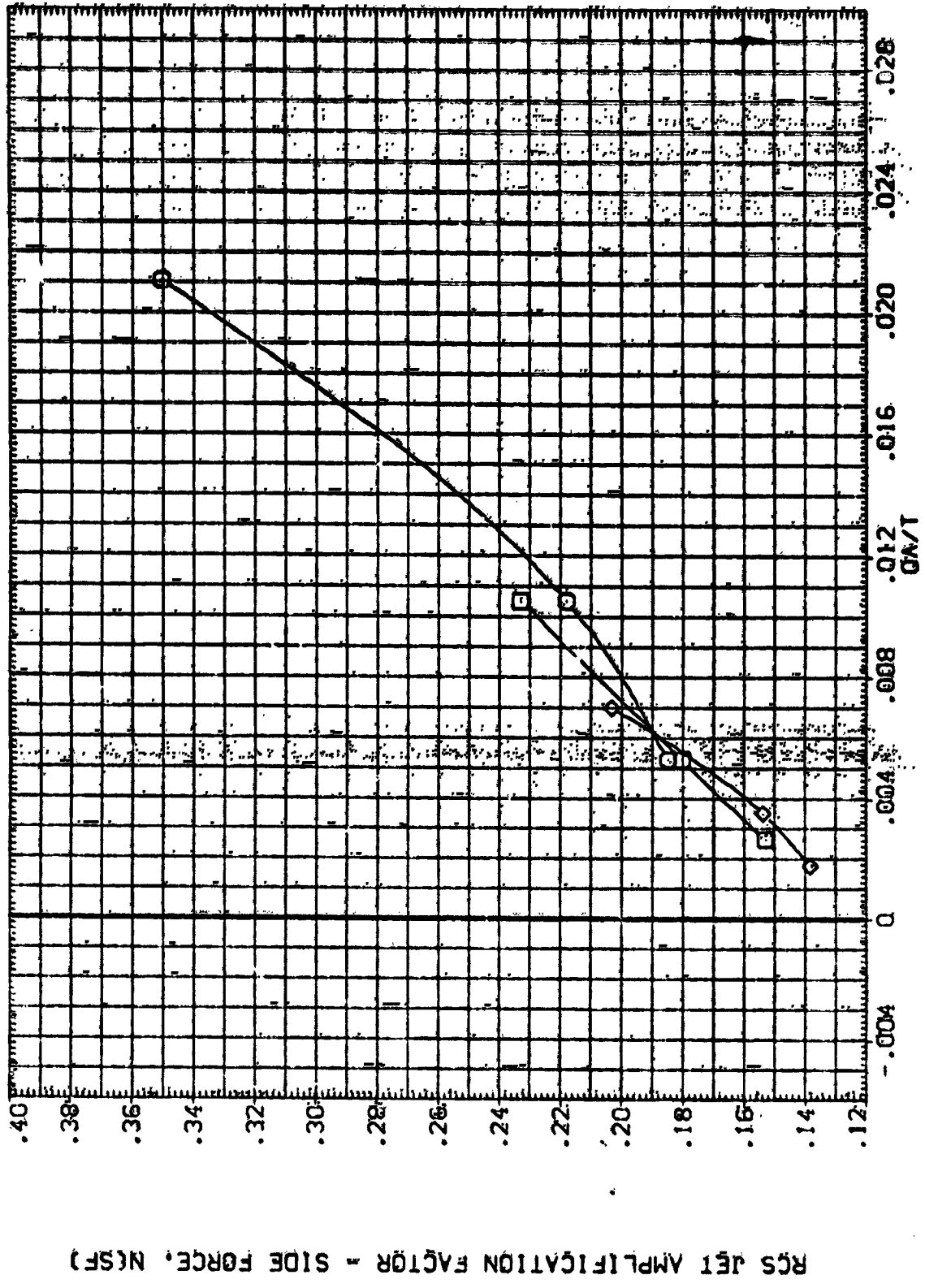


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79.N49.N83

(J)ALPHA = 10.00

DATA SET SYMBOL	Q1N79	Q1N49	Q1N83	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001)	LARC CFHT 118 (NA-22)				.000	1.000	.000	.000	SREF 7890.0000 SQ.FT.
(SJA002)	LARC CFHT 118 (NA-22)				.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA003)	LARC CFHT 118 (NA-22)				.000	3.000	.000	.000	BREF 936.6800 INCHES
									XMRP 1076.7000 IN. YL
									YMRP .0000 IN. YL
									ZMRP 375.0000 IN. ZL
									SCALE .0100

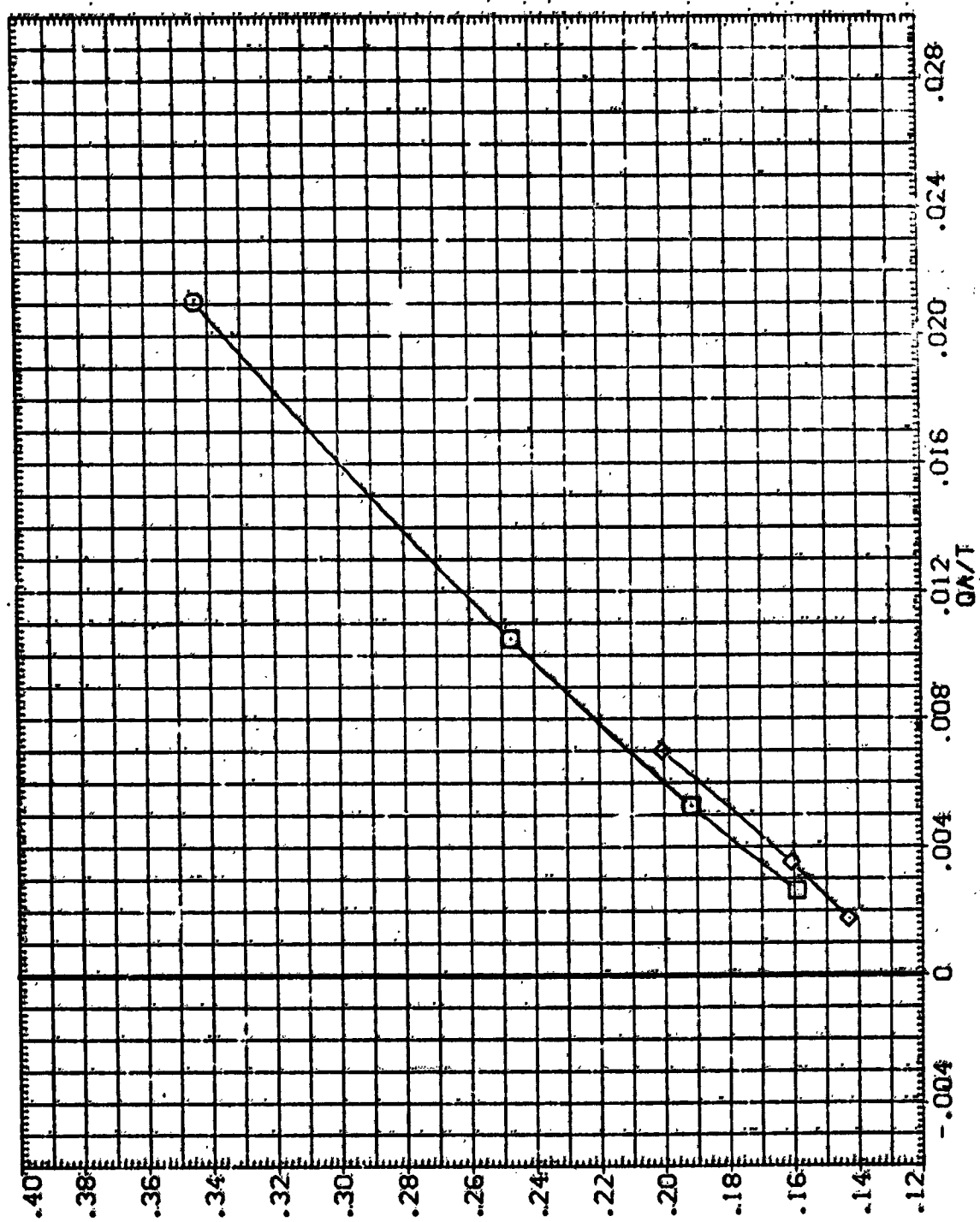


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

(K)ALPHA = 15.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) 01N79 LARC CFHT 118 (MA-221)
 (SJA002) 01N49 LARC CFHT 118 (MA-221)
 (SJA003) 01N83 LARC CFHT 118 (MA-221)

ELEVON NO. JET BOFLAP BETA
 .008 1.000 .000
 .008 2.000 .000
 .008 3.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. X0
 YREF .0000 IN. Y0
 ZREF 375.0000 IN. Z0
 SCALE .0100

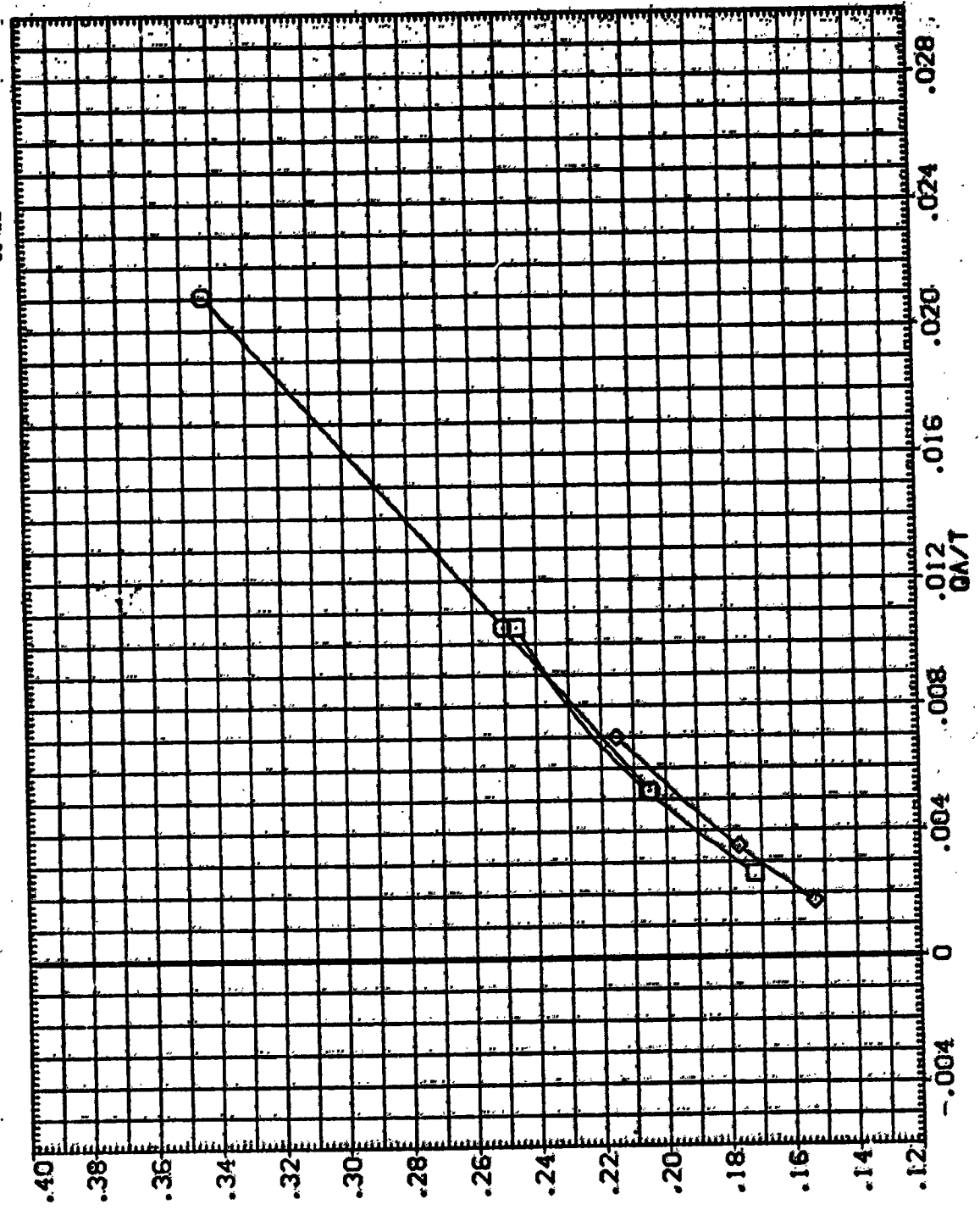


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79, N49, N83

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA001) 01N79 LARC CFHT 118 (MA-22)
 (SJA002) 01N49 LARC CFHT 118 (MA-22)
 (SJA003) 01N83 LARC CFHT 118 (MA-22)

ELEVON NO JET BOFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2690.0000 SQ.FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. NO
 YMRP .0000 IN. Y0
 ZMRP 325.0000 IN. Z0
 SCALE .0100

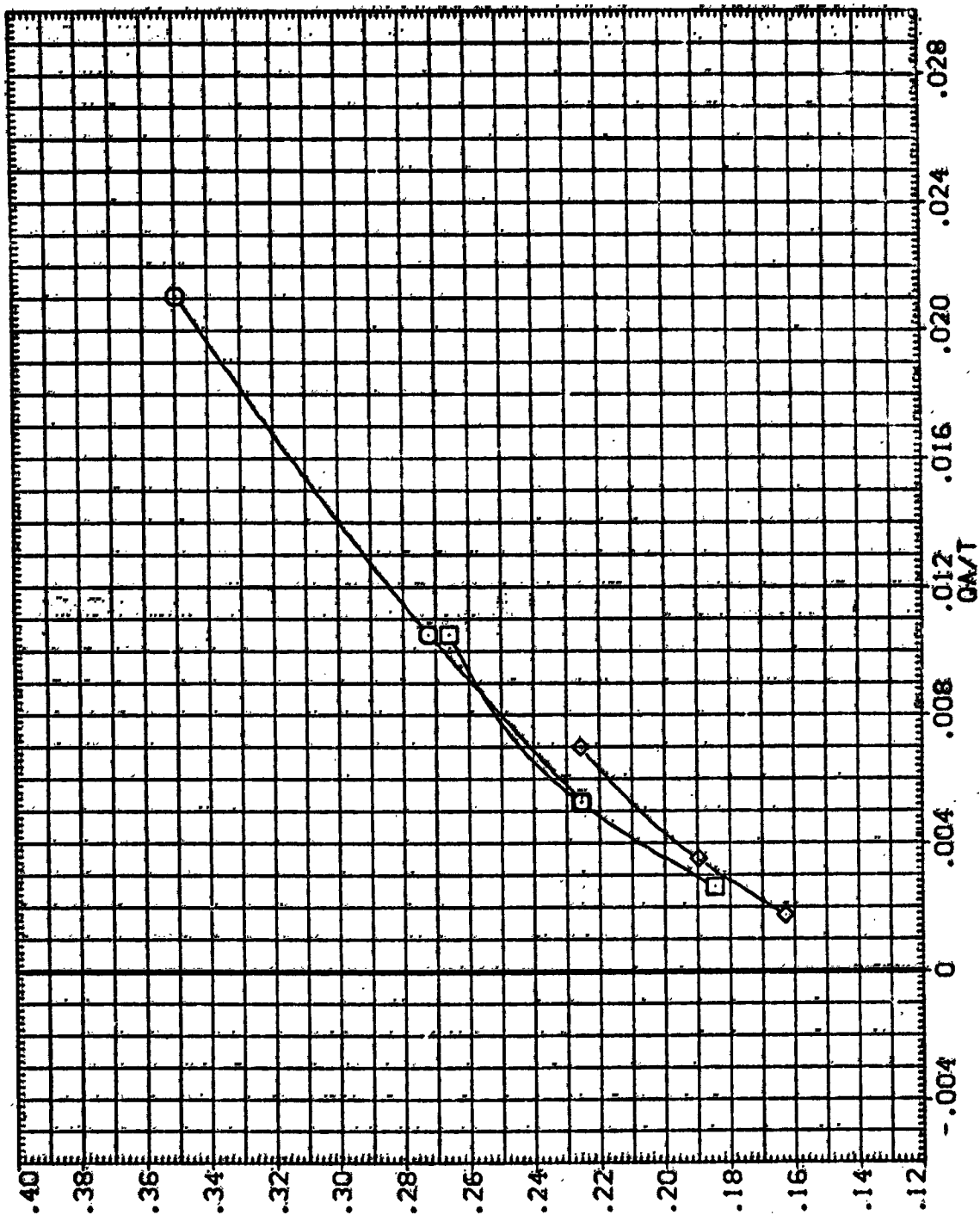


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79, N49, N83

(M)ALPHA = 25.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA001)	CLN79 LARC CFHT 118 (MA-22)	.000	1.008	.000	.000	SREF 2690.0000 SQ. FT.
(SJA002)	CLN49 LARC CFHT 118 (MA-22)	.000	2.008	.000	.000	LREF 474.8000 INCHES
(SJA003)	CLN83 LARC CFHT 118 (MA-22)	.000	3.680	.600	.000	BREF 936.6800 INCHES
						YGRP 1076.2000 IN. X0
						ZGRP 375.0000 IN. Y0
						SCALE .0100

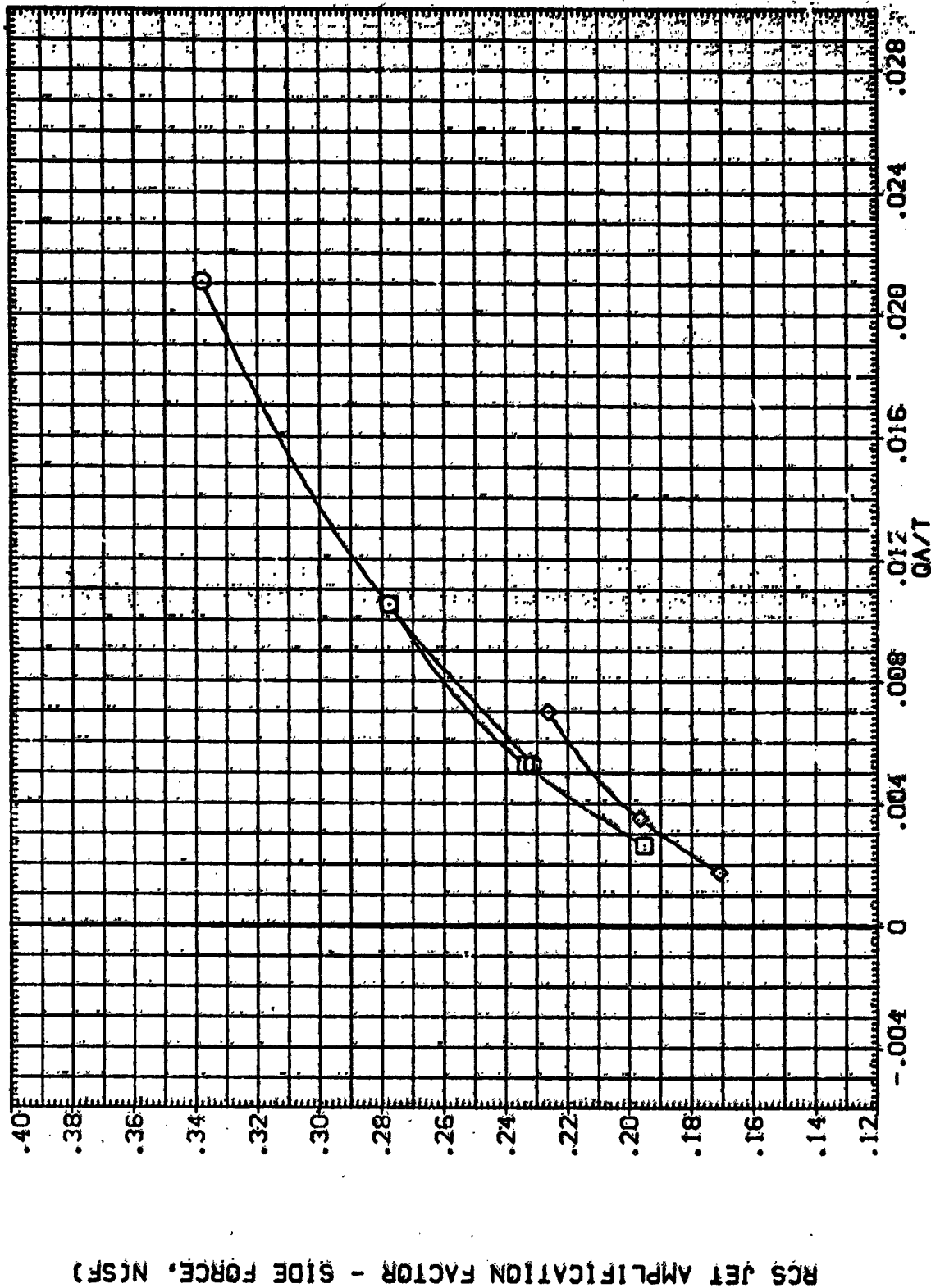


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N79.N49.N83

(N)ALPHA = 30.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJ0001) 01N79 LARC CFMT 118 (MA-22)
 (SJ0002) 01N49 LARC CFMT 118 (MA-22)
 (SJ0003) 01N83 LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION
 1.000 1.000 .000 SREF 2690.0000 50. FT
 2.000 2.000 .000 LREF 474.8000 INCHES
 3.000 3.000 .000 BREF 536.6800 INCHES
 XRRP 1076.7000 IN. X0
 YRRP .0000 IN. Y0
 ZRRP 375.0000 IN. Z0
 SCALE .0100

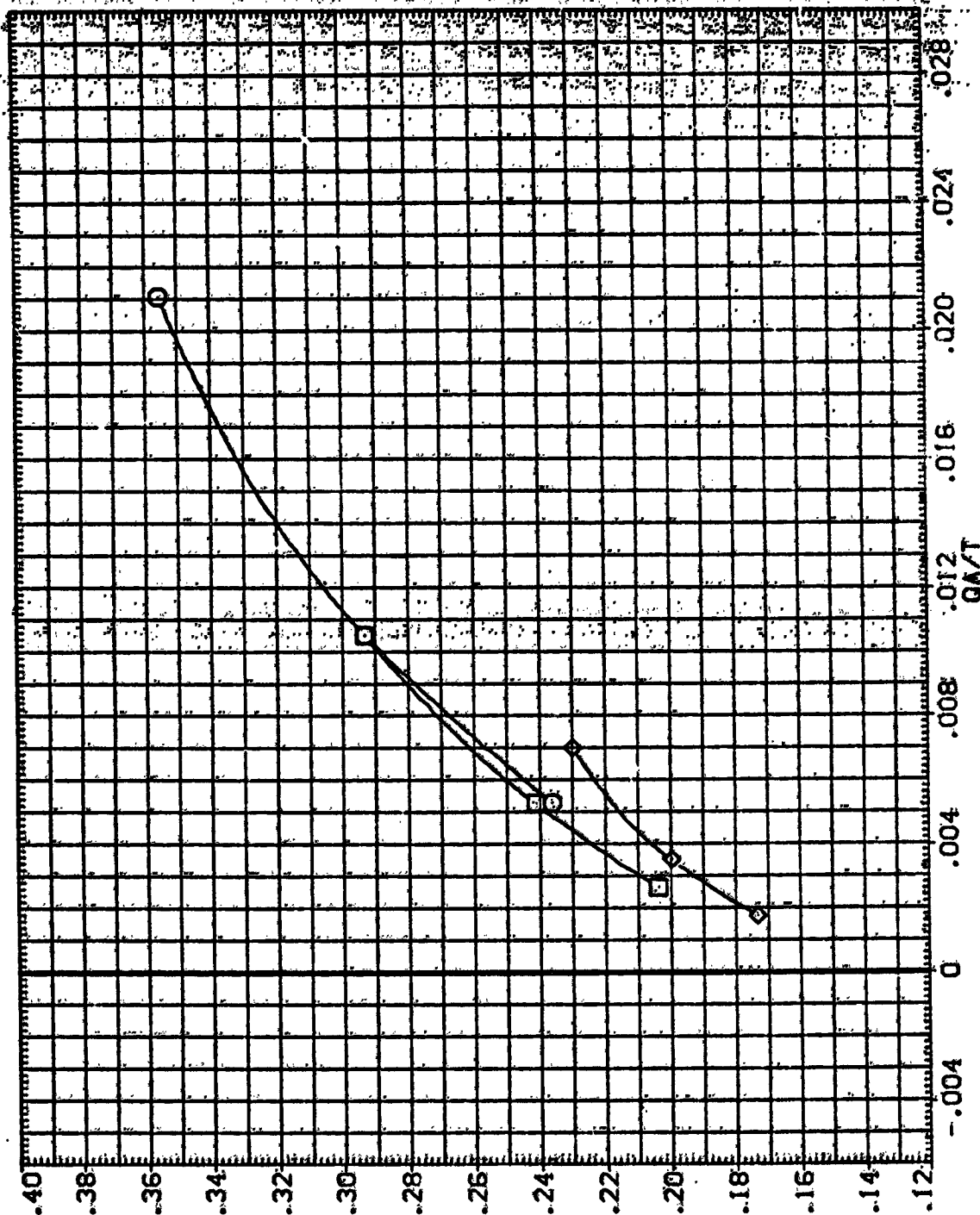


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS. N79, N49, N83

(0)ALPHA = 35.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA004) Q1N31 LARC CPMT 118 (MA-22)
 (SJA005) Q1N85 LARC CPMT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
 .600 4.000 .000 .000
 .000 2.000 .000 .000

REFERENCE INFORMATION
 SREF 2630.0000 50.57
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XHREF 1076.7000 IN. X0
 YHREF .0000 IN. Y0
 ZHREF 375.0000 IN. Z0
 SCALE .0100

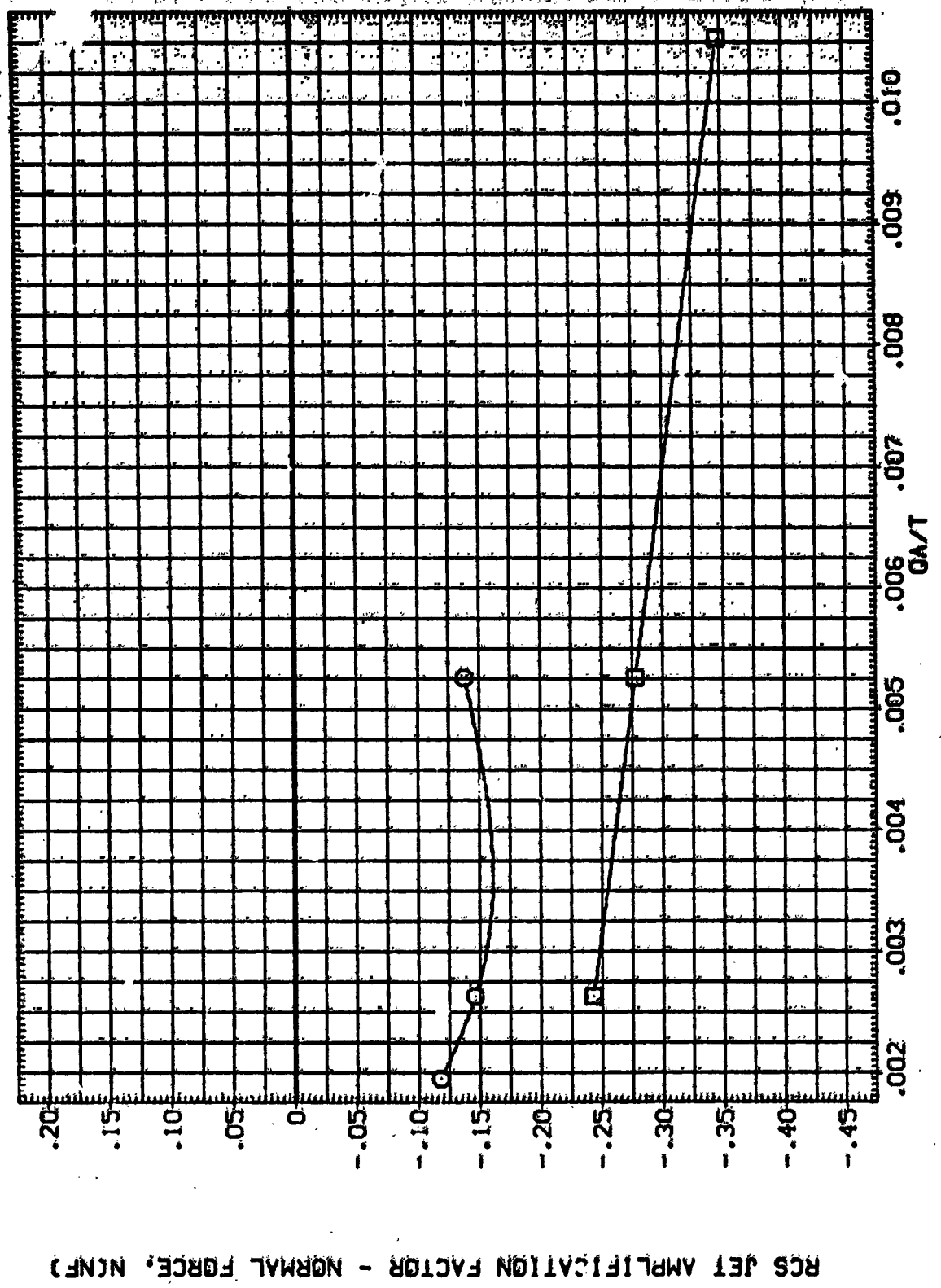


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BOFLAP		BETA		REFERENCE INFORMATION			
(SJA004)	8	QIN51	LARC CFP 118 (NA-22)	.000	.000	4.000	.000	.000	.000	SREF	2690.0000	50. FT.			
(SJA005)		QIN85	LARC CFP 118 (NA-22)	.000	.000	2.000	.000	.000	.000	LREF	474.8000	INCHES			
										BREF	936.6800	INCHES			
										XMRP	1076.7000	IN. 10			
										YMRP	0000	IN. 10			
										ZMRP	375.0000	IN. 20			
										SCALE	.0100				

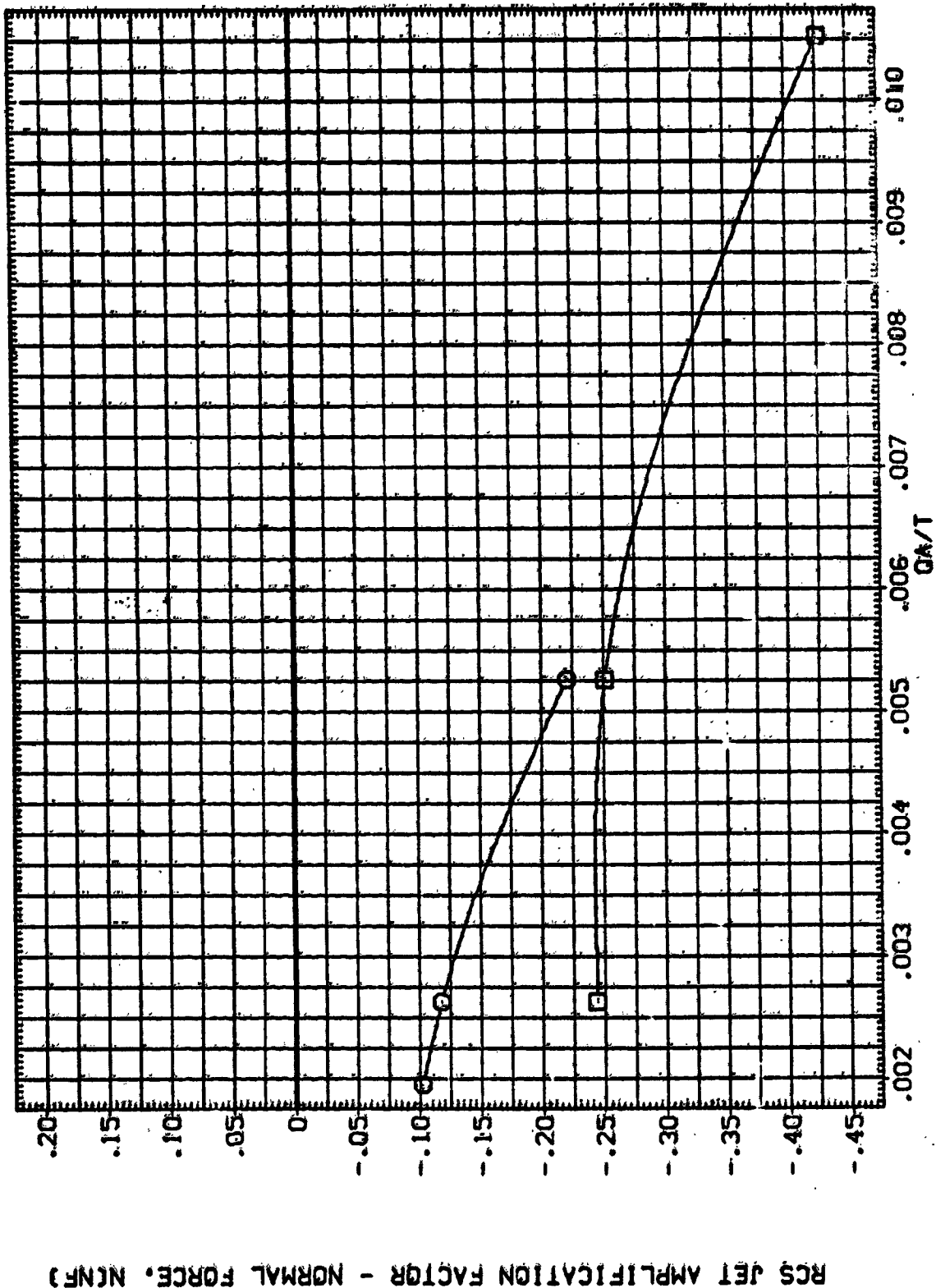


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS. N51.N85

(B)ALPHA = -6.00

REFERENCE INFORMATION	
	50 FT. INCHES IN. X0 IN. X0 IN. X0
SREF	2590.0800
LREF	474.8800
BREF	936.6800
XRRP	1076.7000
YRRP	0000.
ZRRP	375.0200
SCALE	0.0100

ELEVEN	NO. JET	BOFLAP	BETA
.000	4.000	.000	.000
.000	2.000	.000	.000

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
(SJAC04)	Q	LARC CEHT 118 (MA-22)	
(SJAC06)	Q	LARC CEHT 118 (MA-22)	

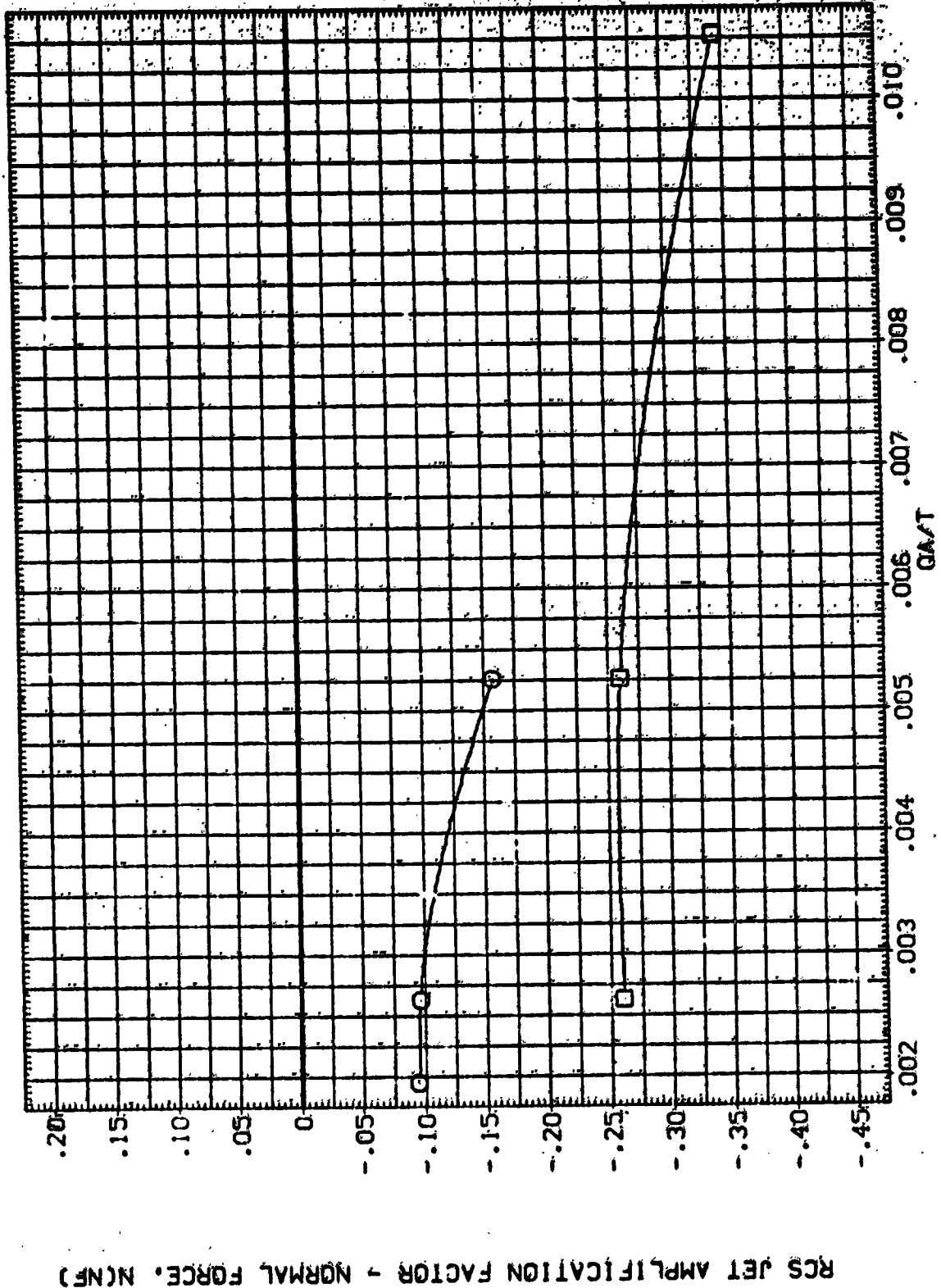


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS. N51-N85

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BOFLAP		BETA		REFERENCE INFORMATION	
(SJA004)	Q1NS	LARC CPMT 118 (MA-22)		.000	.000	4.000	.000	.000	.000	SREF	2690.0000	IN	50.00
(SJA005)	Q1NS	LARC CPMT 118 (MA-22)		.000	.000	2.000	.000	.000	.000	LREF	474.8000	INCHES	
										BREF	936.6800	INCHES	
										XMRP	1076.7000	IN	70
										YMRP	.0000	IN	20
										ZMRP	395.0000	IN	20
										SCALE	.0100		

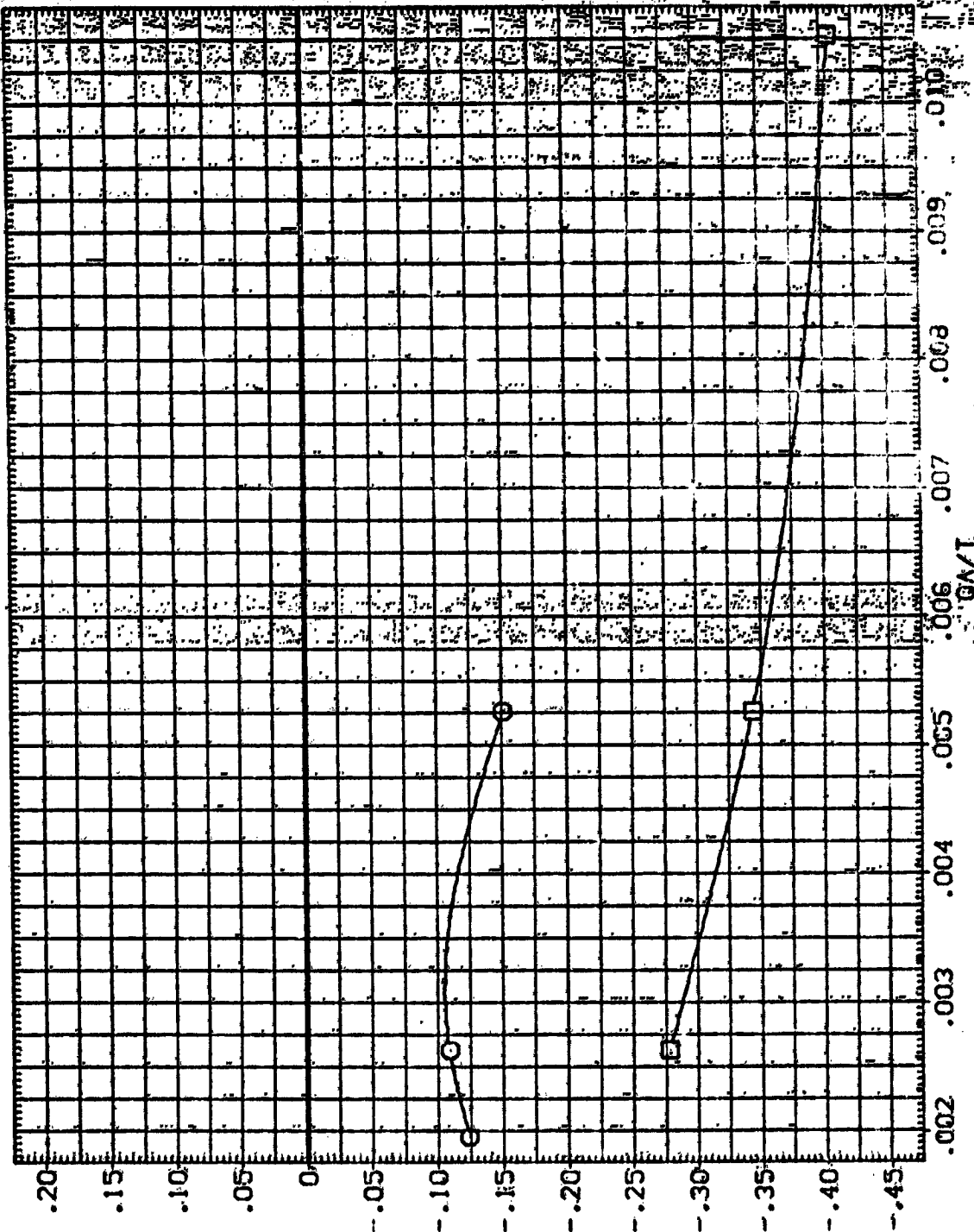


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(O) ALPHA = -2.00

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

DATA SET SYMBOL: (SJA004.1) (SJA005.1)

CONFIGURATION DESCRIPTION:
 QINSE LARC CFHT 118 (MA-22)
 QINSE LARC CFHT 118 (MA-22)

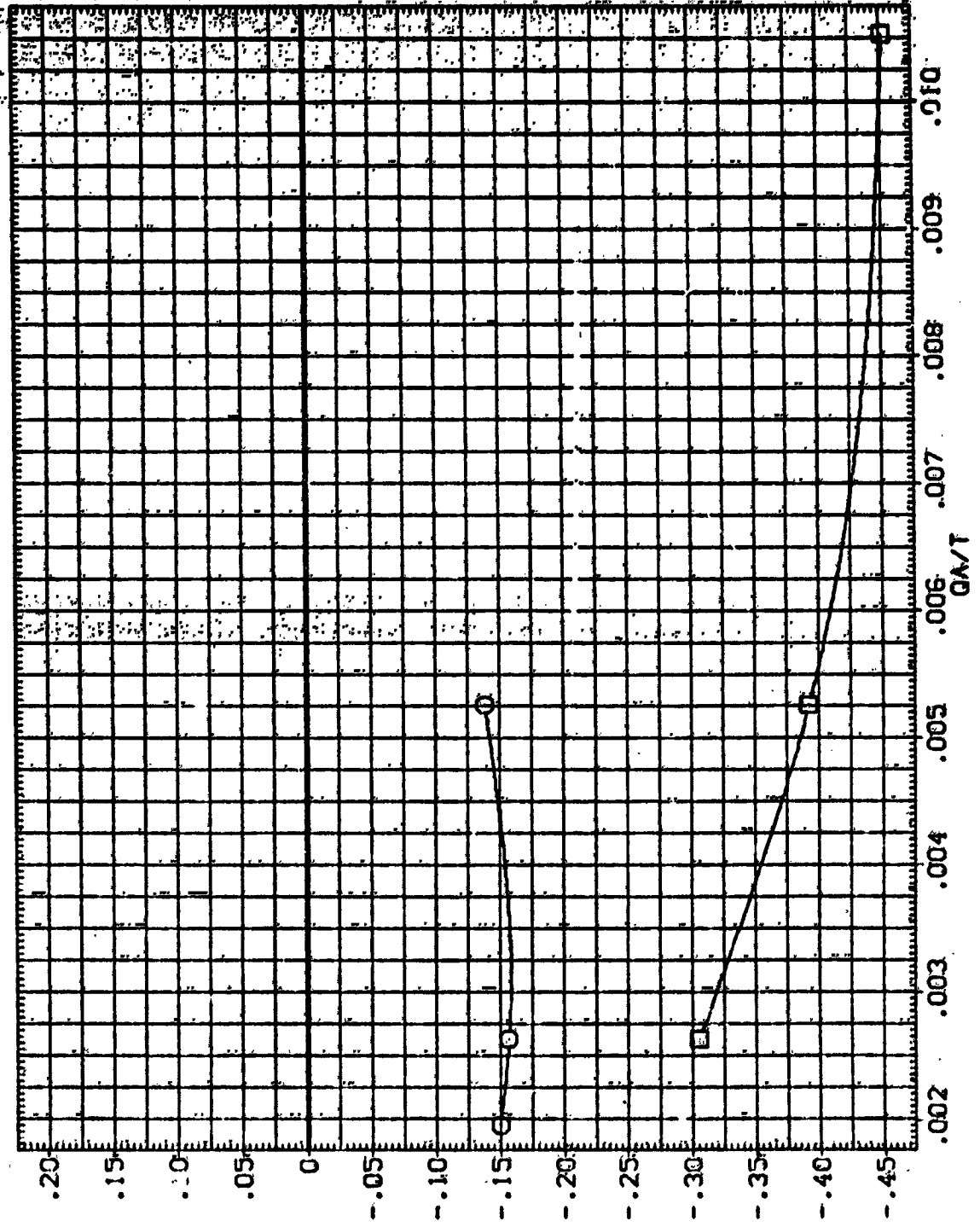
ELEVON: .000
 .000

NO. JET: 4.000
 2.000

BDELAP: .000
 .000

BETA: .000
 .000

REFERENCE INFORMATION:
 SREF: 2690.0000 IN. 20
 LREF: 474.8000 IN. 20
 BREF: 936.6800 IN. 20
 XTRP: 1076.7000 IN. 20
 YTRP: .0000 IN. 20
 ZTRP: 375.0000 IN. 20
 SCALE: .0100



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BOFLAP		BETA		REFERENCE POSITION	
(SJA004)	□	Q17.51	LARC CFMT 118 (MA-22)	.000	.000	4.000	.000	.000	.000	SREF	2650.6	50. FT.	
(SJA005)	□	Q18.05	LARC CFMT 118 (MA-22)	.006	.006	2.000	.000	.000	.000	LRPF	494.8	INCHES	
										BRPF	936.6	INCHES	
										XRPF	1076.7	IN. X0	
										YRPF	0.0	IN. Y0	
										ZRPF	375.6	IN. Z0	
										SCALE	.01.3		

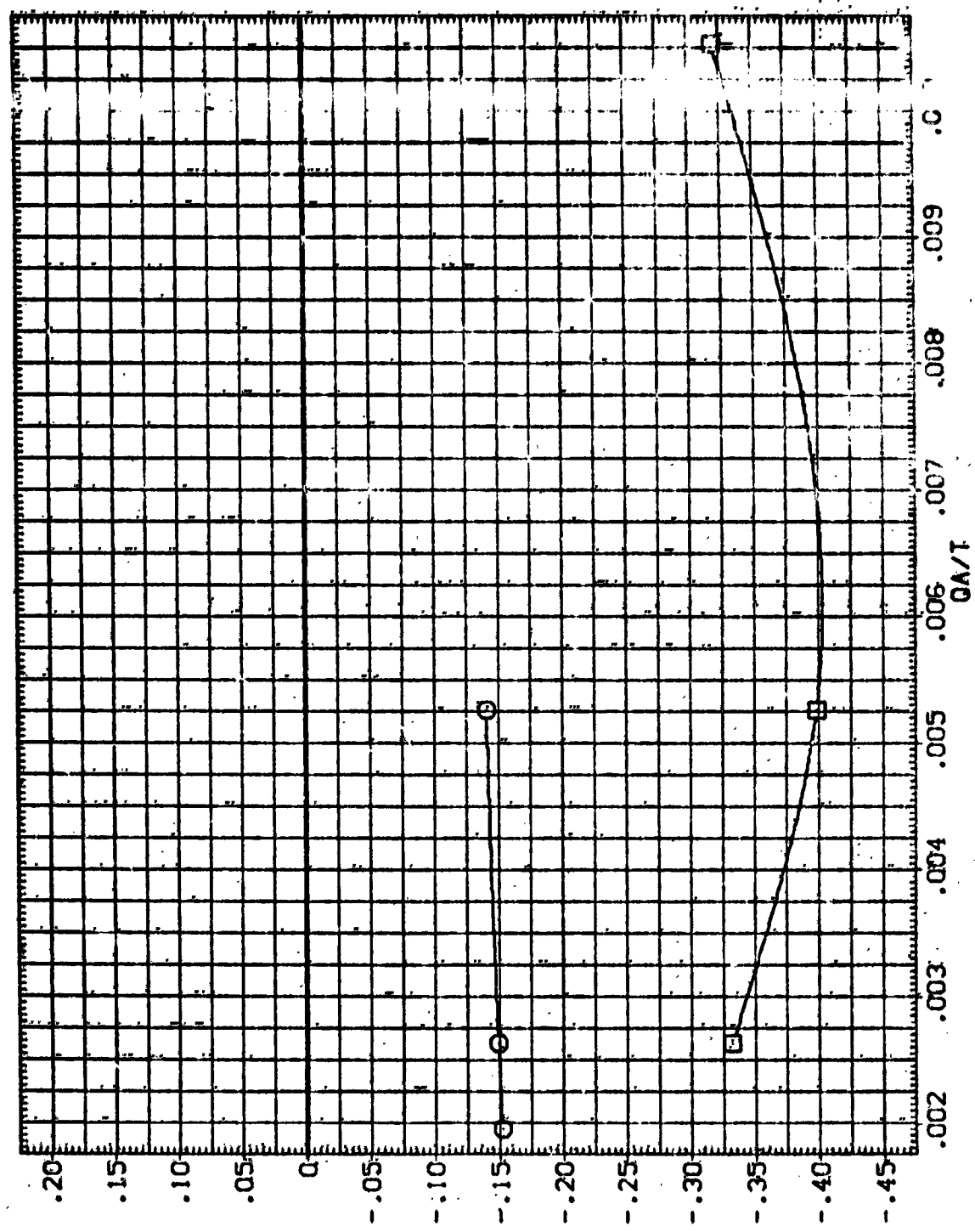


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(FJALPHA = 2.00)

DATA SET SYMBOL: 81N51 81N85
 (SJA004) (SJA005)
 CONFIGURATION DESCRIPTION:
 LARC CENT 118 (MA-22)
 LARC CENT 118 (MA-22)

ELEVON: .000 .000
 NO. JET: 4.000 2.000
 BOFLAP: .000 .000
 BETA: .000 .000

REFERENCE INFORMATION:
 SQ. FT. 2650.0000
 INCHES 474.8000
 INCHES 936.6800
 IN. X0 1076.7000
 IN. Y0 375.0000
 IN. Z0 375.0000
 SCALE .0100

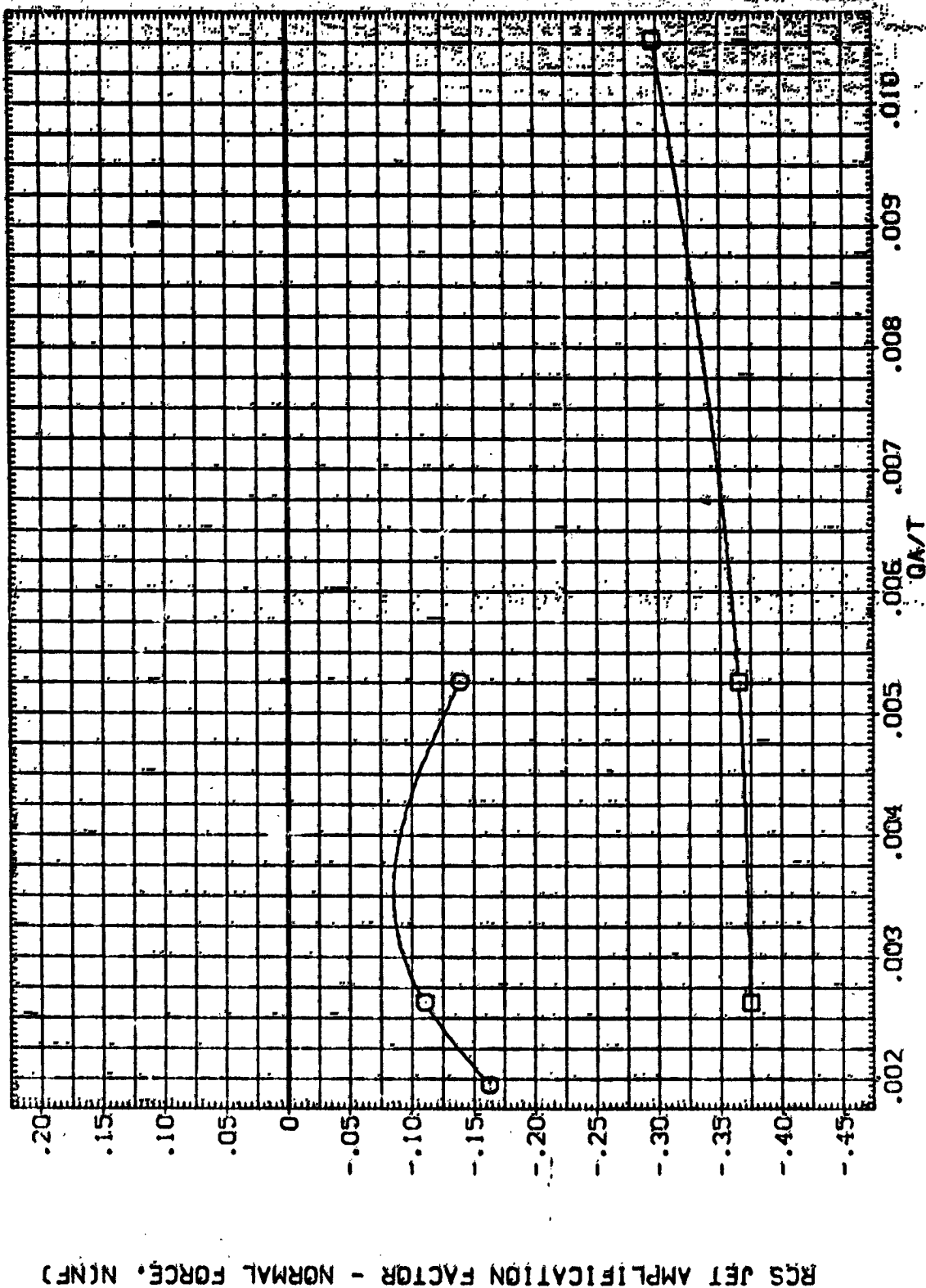


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N85

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA004) Q1N51 LARC CFHT 118 (NA-22)
 (SJA003) Q1N85 LARC CFHT 118 (NA-22)

ELEVON NO. JET BOFLAP BEIN REFERENCE INFORMATION
 .000 4.000 .000 .000 SREF 2690.0000 ISO.F
 .000 2.000 .000 .000 LREF 474.8000 INCHES
 .000 .000 .000 .000 BREF 936.8800 INCHES
 .000 .000 .000 .000 XREF 1076.7000 IN 10
 .000 .000 .000 .000 YREF 375.0000 IN 10
 .000 .000 .000 .000 ZREF .0100 IN 10
 .000 .000 .000 .000 SCALE .0100

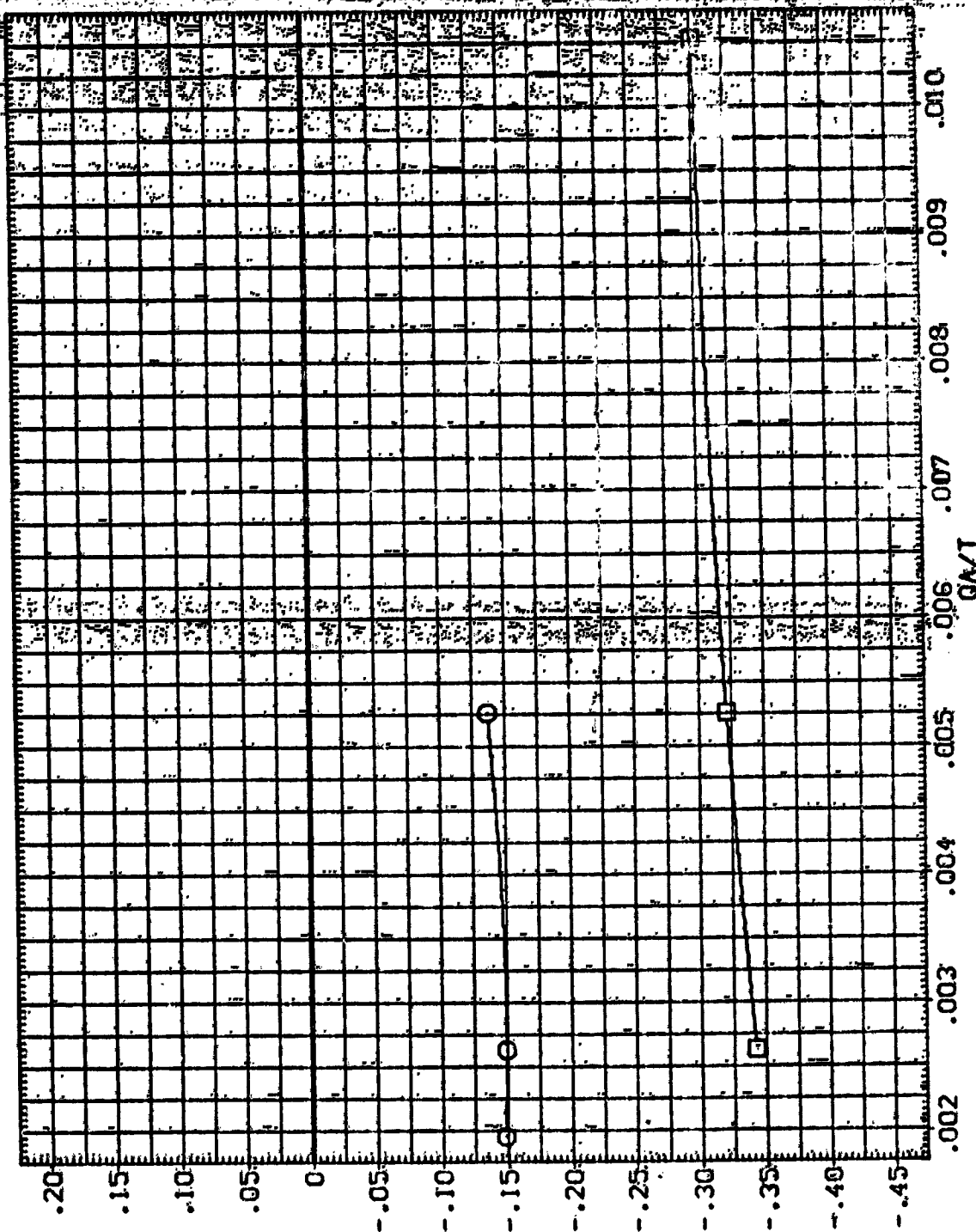


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(H)ALPHA = 6.00

DATA SET SYMBOL: (S)AG04 (S)AC05

CONFIGURATION DESCRIPTION: LARC CFT 118 (MA-22) LARC CFT 118 (MA-22)

ELEVON: .000 .000

NO. JET: 4.000 2.000

BFLAP: .000 .000

BETA: .000 .000

REFERENCE INFORMATION:

	SD, FT.	INCHES
SREF	2690.0000	INCHES
LREF	474.8000	INCHES
BREF	936.6000	INCHES
XMRP	1076.7000	IN. TO
YMRP	.0800	IN. TO
ZMRP	373.0000	IN. TO
SCALE	.0100	

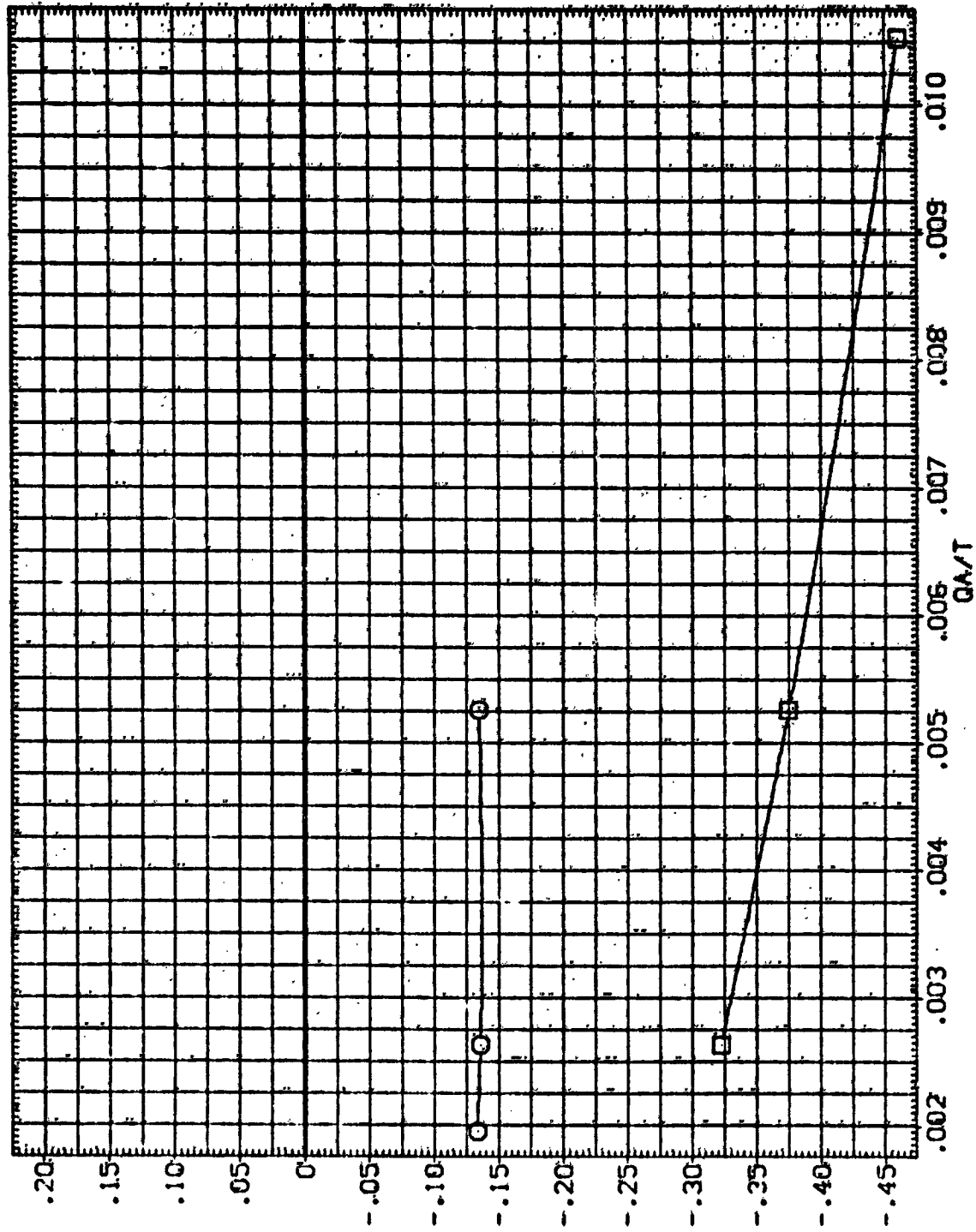


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N85

(I)ALPHA = 8.00

DATA SET SYMBOL (SJA004) 8
 CONFIGURATION DESCRIPTION
 GINSI LARC CFRI 118 (MA-22)
 GINSI LARC CFRI 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
 .000 4.000 .000
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2650.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 906.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP 375.0000 IN. Y0
 ZMRP 0.0000 IN. Z0
 SCALE .0100

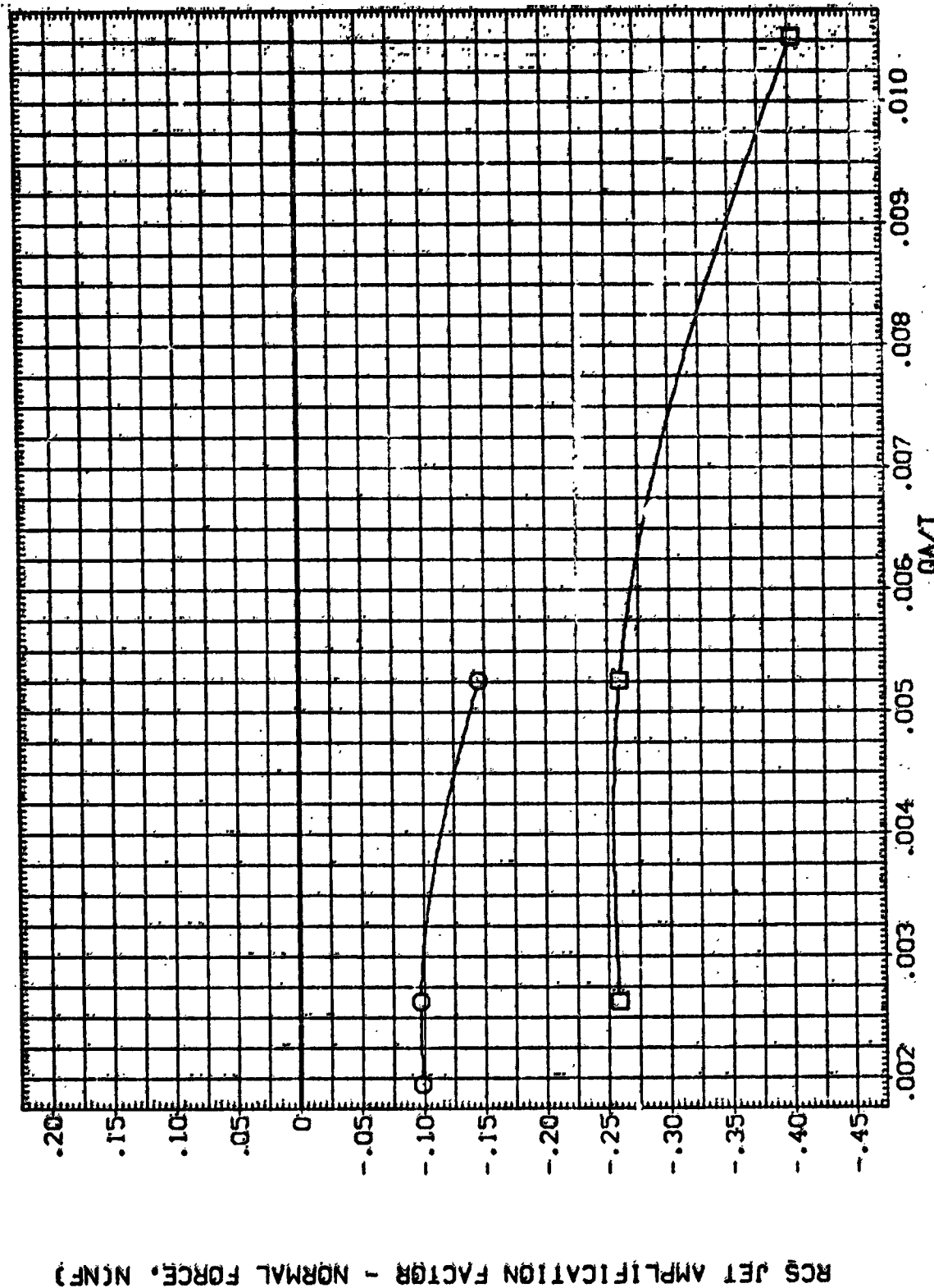


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(J) ALPHA = 10.00

DAT SET SYMBOL (SJA274) (SJA275)	CONFIGURATION DESCRIPTION GINS1 LARC CFMT 118 (HA-22) GINS8 LARC CFMT 118 (HA-22)	ELEXON .000 .000	NO. JET 4.000 2.000	BOFLAP .000 .000	BETA .000 .000	REFERENCE INFORMATION SREF 2690.0000 SO. FT. LREF 474.8000 INCHES BREF 936.6000 INCHES XRRP 1076.7000 IN. 10 YRRP .0000 IN. 10 ZRRP 375.0000 IN. 28 SCALE .0100
--	---	------------------------	---------------------------	------------------------	----------------------	--

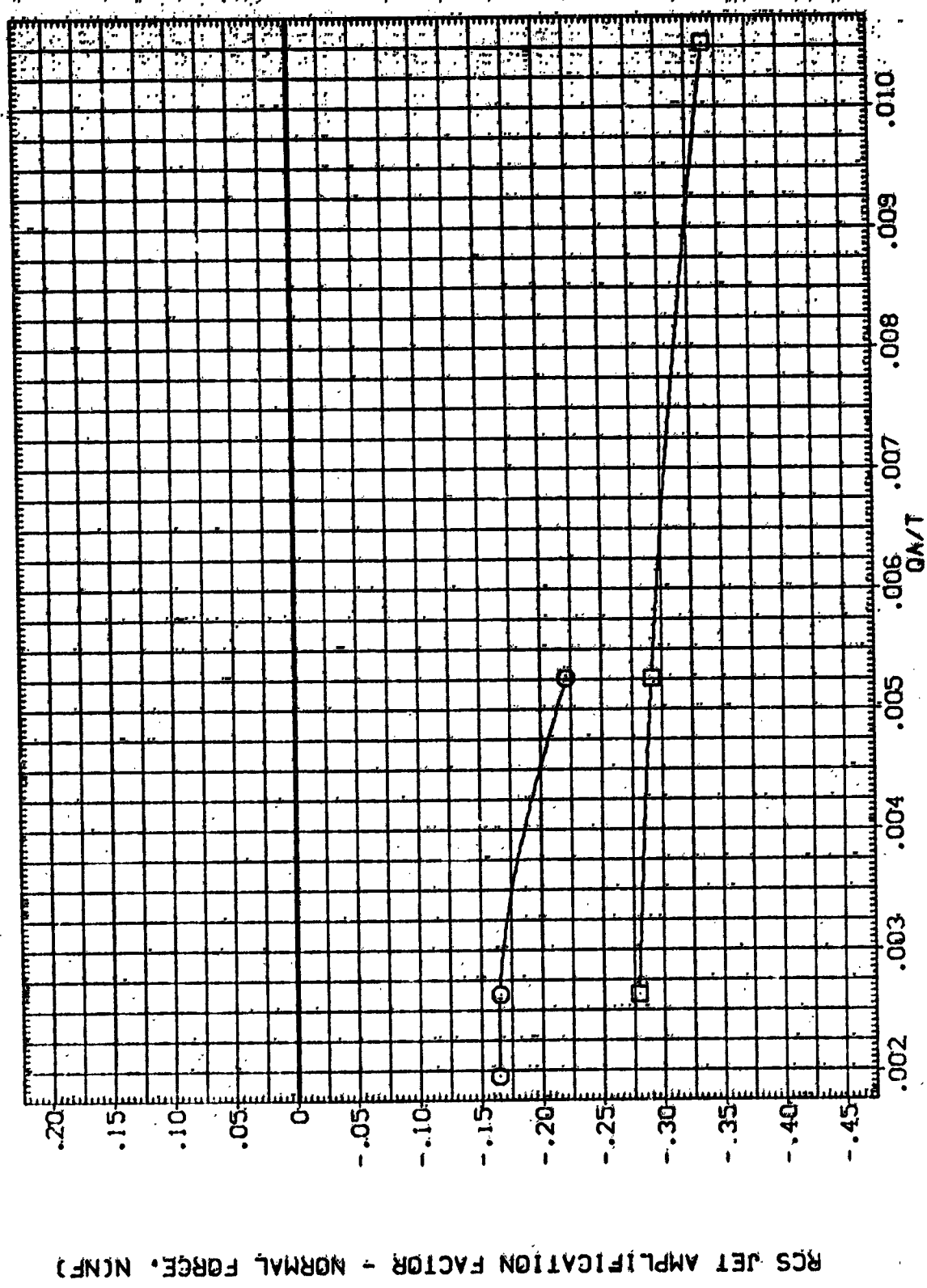


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS. N51, N85

(K)ALPHA = 15.00

DATA SET SYMBOL: (SJAD004)
 CONFIGURATION DESCRIPTION: LARC CFRT 118 (MA-22)
 QIN51 QIN85

ELEVON: .000
 NO. JET: 4.000
 BOFLAP: .000
 BETA: .008
 REFERENCE INFORMATION:
 SREF: 2690.0000 IN. FT.
 LREF: 474.8000 INCHES
 BRP: 936.6000 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

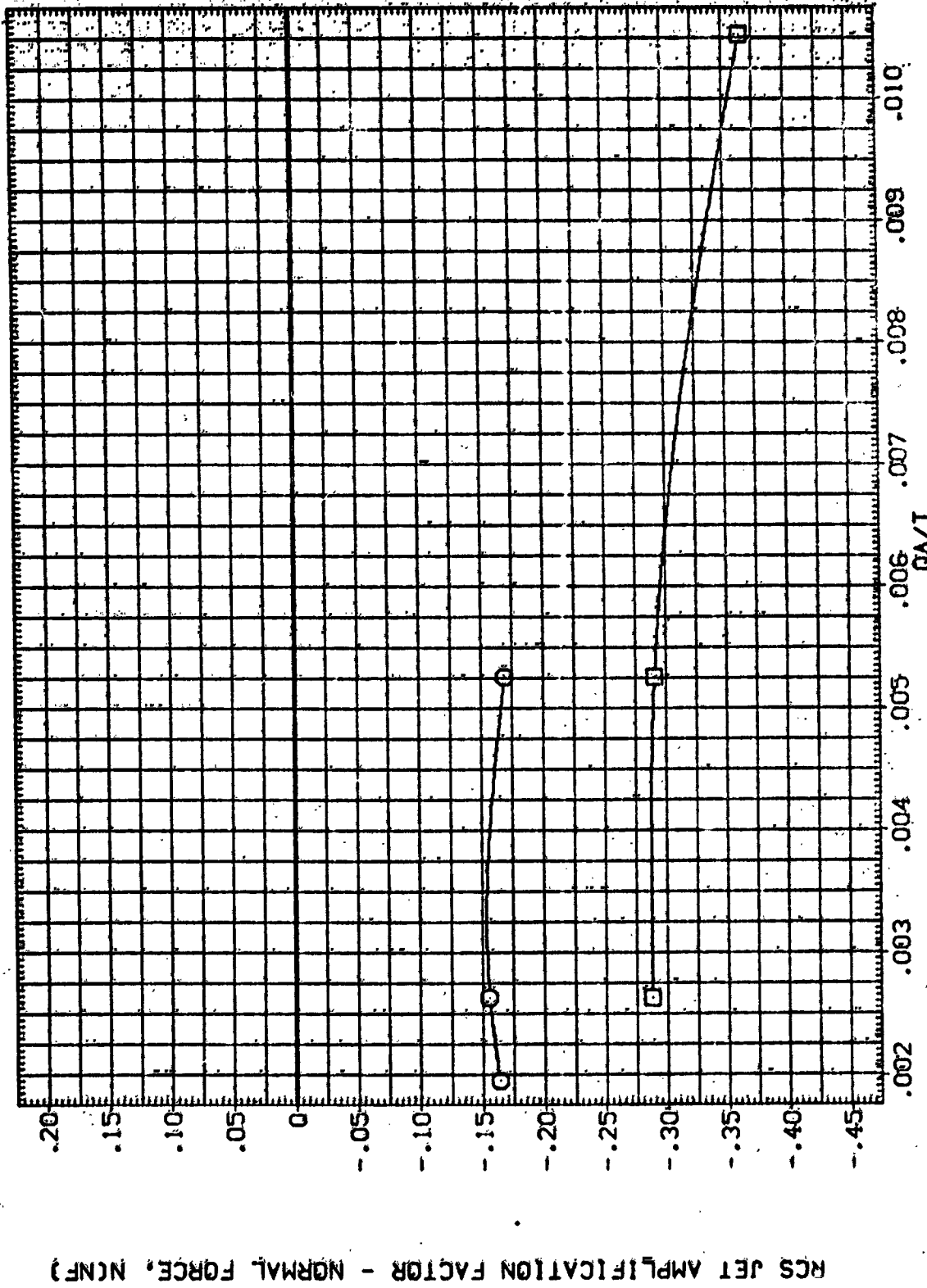


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(LJALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJACC4)	QINS1 LARC CFHT 118 (MA-22)	.000	4.000	.000	.000	SREF 2690.0000 SQ. FT.
(SJACC5)	QINB5 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
						BREF 936.6800 INCHES
						XMRP 1076.7000 IN. YR
						YMRP .0000 IN. YR
						ZMRP 375.0000 IN. YR
						SCALE .0100

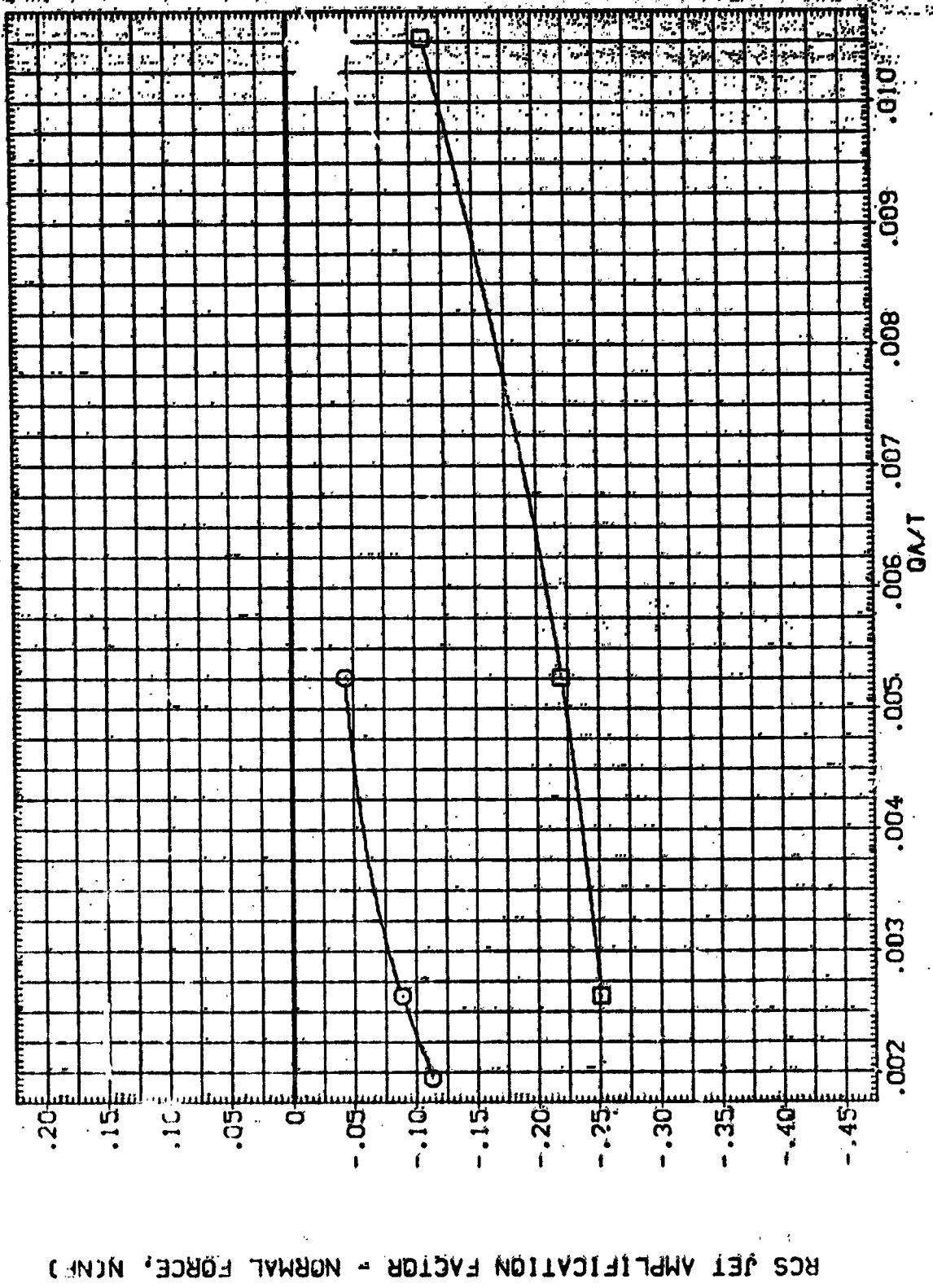


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

DATA SET SYMBOL (SJA004) 8
 (SJA005) 8
 01N5) LARC CFHT 118 (MA-22)
 01N85 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION
 .000 4.000 .000 SREF 2690.0000 50 FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 XREF 936.8800 INCHES
 YREF 1076.7000 IN. XG
 ZREF 375.0000 IN. YG
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, NCNF)

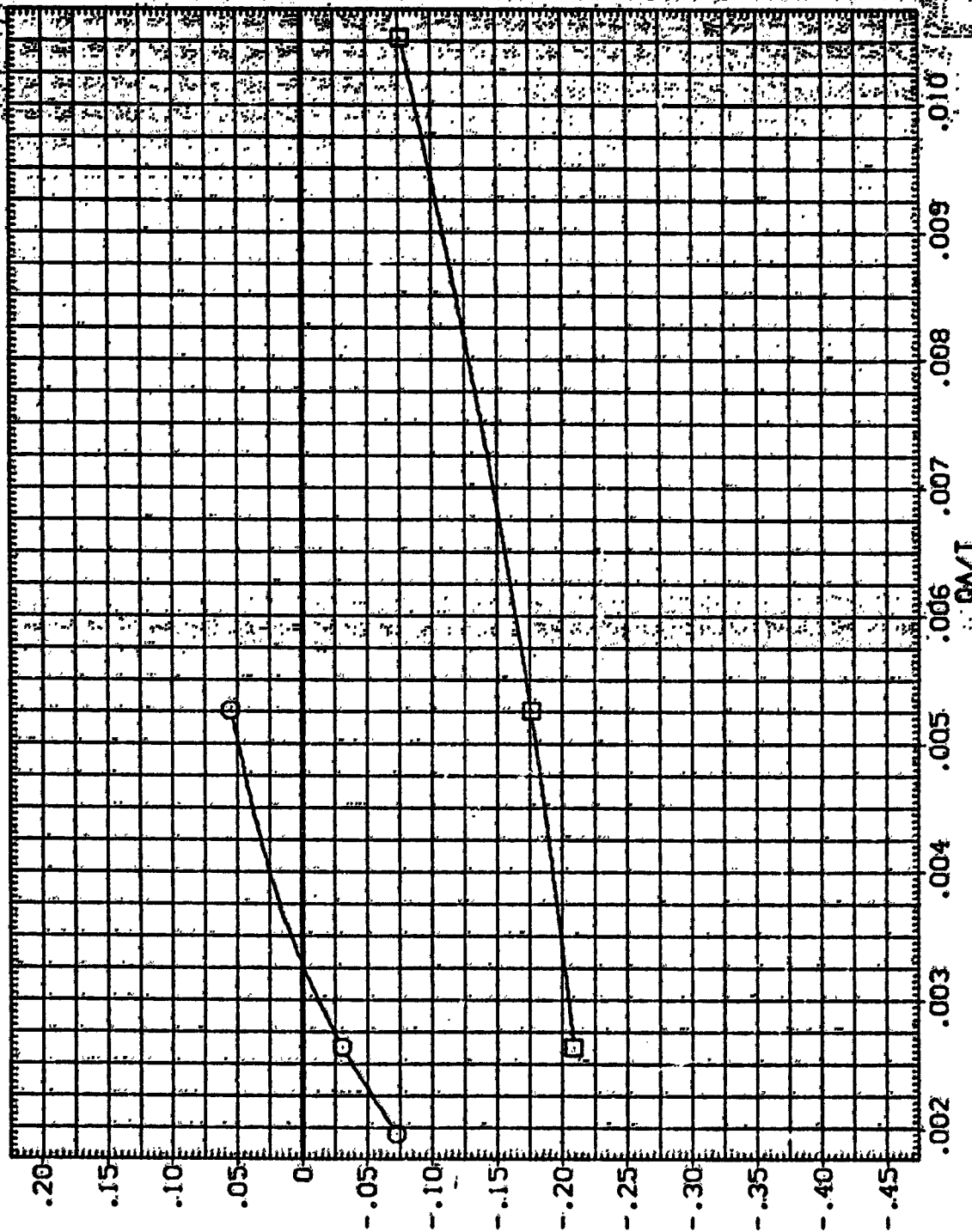


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(NJALPHA = 30.00

DATA SET SYMBOL: 2
 (SJA005)
 (SJA005)

CONFIGURATION DESCRIPTION:
 01N51 LARC CPMT 118 (NA-22)
 01N85 LARC CPMT 118 (NA-22)

ELEVON: .000
 NO. JET: 4.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 INCHES
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XREF: 1076.7000 INCHES
 YREF: 375.0000 INCHES
 ZREF: .0100 INCHES
 SCALE: .0100

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, (NMF)

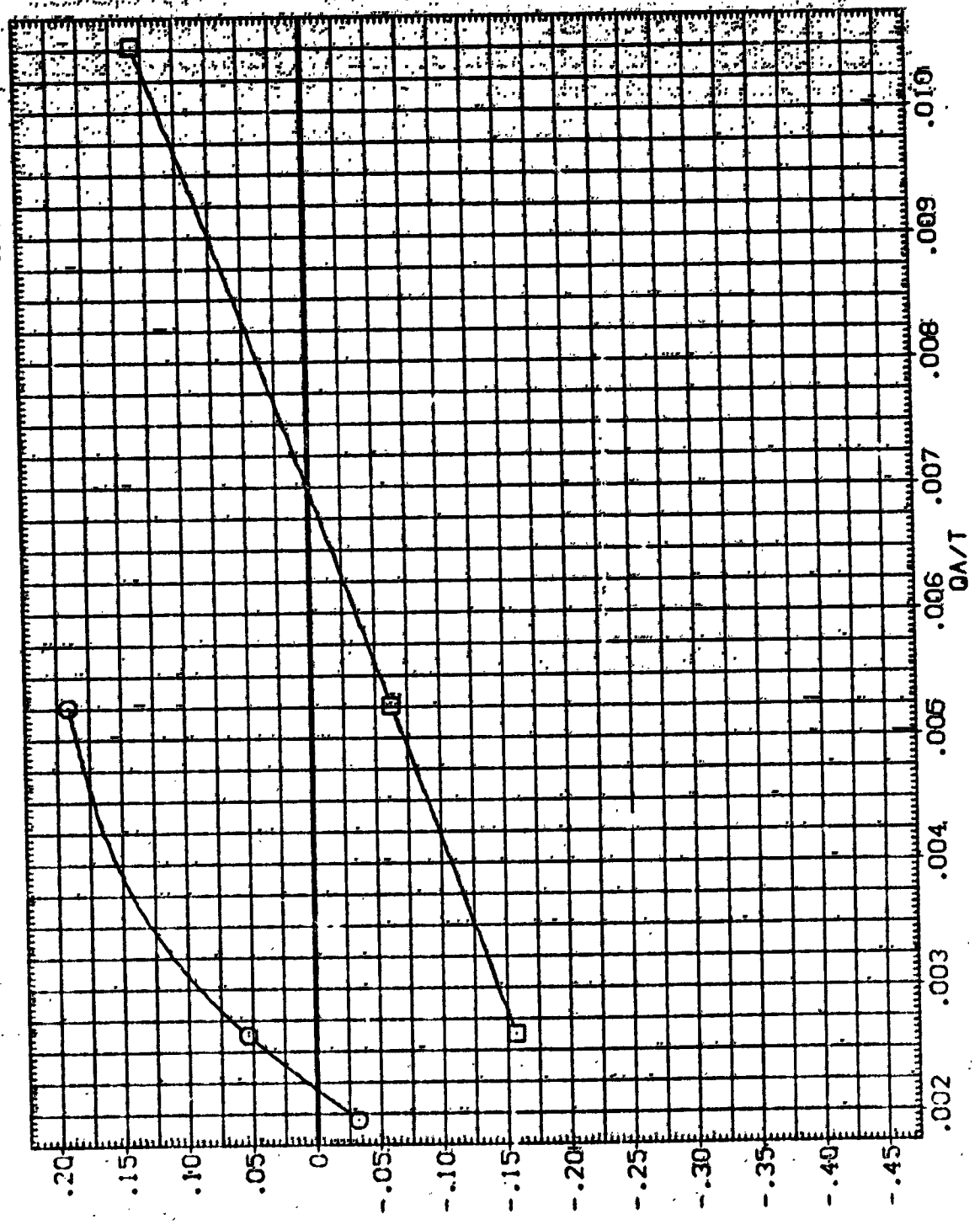


FIGURE 26: EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(TOTAL PHA = 35.00)

DATA SET SYMBOL: (SJA004) 8
(SJA005) 01N85
CONFIGURATION DESCRIPTION:
LARC CFHT 118 6M-22)
LARC CFHT 118 6M-22)

ELEVON: .000
H2-JET: 4.000
80FLAP: .000
BETA: .000
.000

REFERENCE INFORMATION:
SREF: 2690.0000 SQ.FT.
LREF: 474.8000 INCHES
BREF: 936.6800 INCHES
XMRP: 1076.7000 IN. X0
YMRP: .0000 IN. Y0
ZMRP: 375.0000 IN. Z0
SCALE: .0100

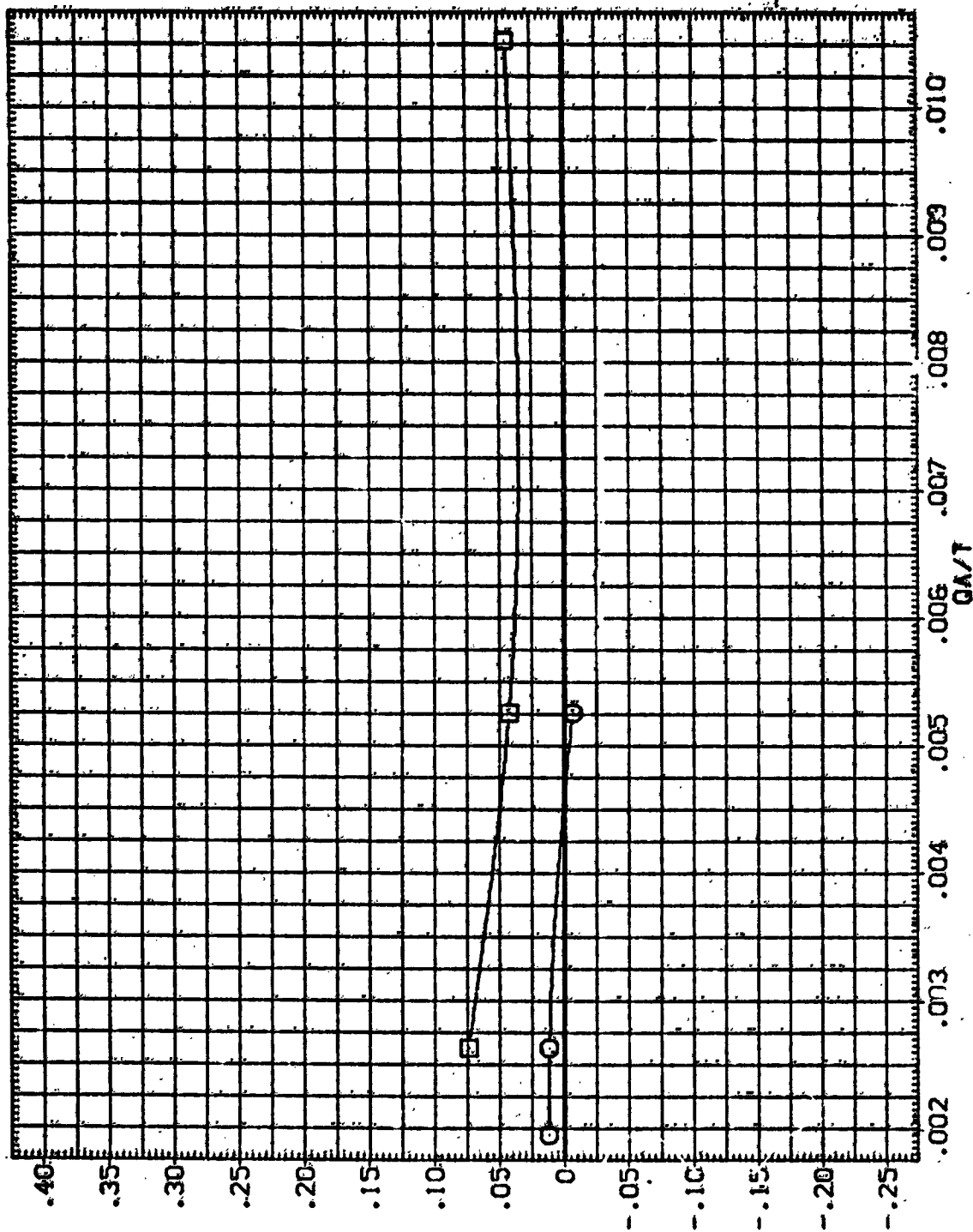


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N85

(A) ALPHA = -8.00

DATA SET SYMBOL: 01N51
 (SJA004) LARC CFHT 118 (NA-22)
 (SJA005) LARC CFHT 118 (NA-22)

ELEVON: .000
 NO-JET: 4.000
 BOFLAP: .000
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2880.0000 50. FT.
 LREF: 424.8000 INCHES
 BREF: 936.8000 INCHES
 XTRP: 1076.2000 IN. X0
 YTRP: .0000 IN. Y0
 ZTRP: 375.6000 IN. Z0
 SCALE: .0000

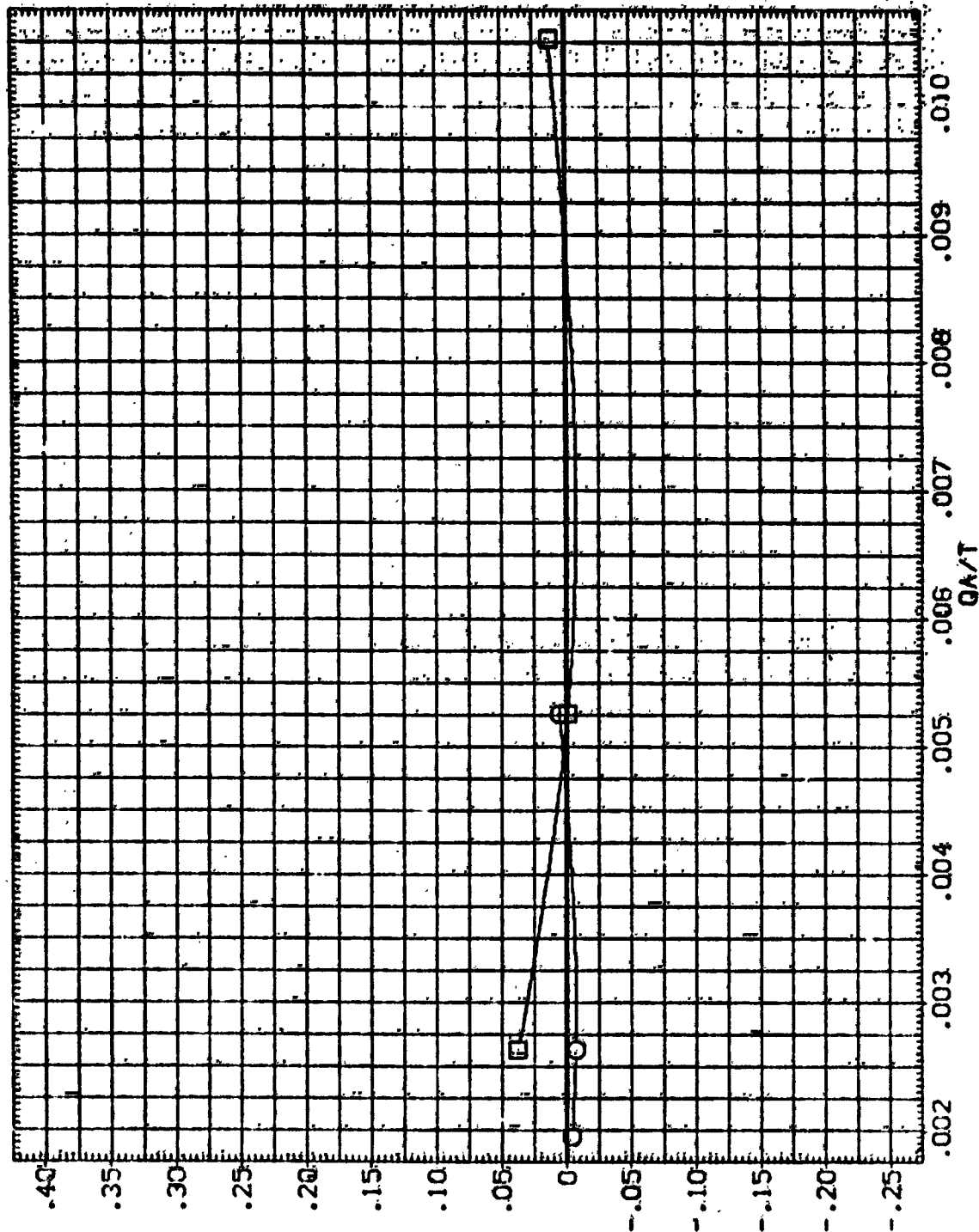


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N85

DATA SET SYMBOL (SJA004) 8
 CONFIGURATION DESCRIPTION
 01N51 LARC CFHT 1:18 (MA-22)
 01N85 LARC CFHT 1:18 (MA-22)

ELEVON: .000
 NO. JET: 4.000
 80FLAP: .000
 BETA: .600

REFERENCE INFORMATION
 SREF 2690.0000 30. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. 20
 YMRP .0000 IN. 20
 ZMRP 375.0000 IN. 20
 SCALE .0100

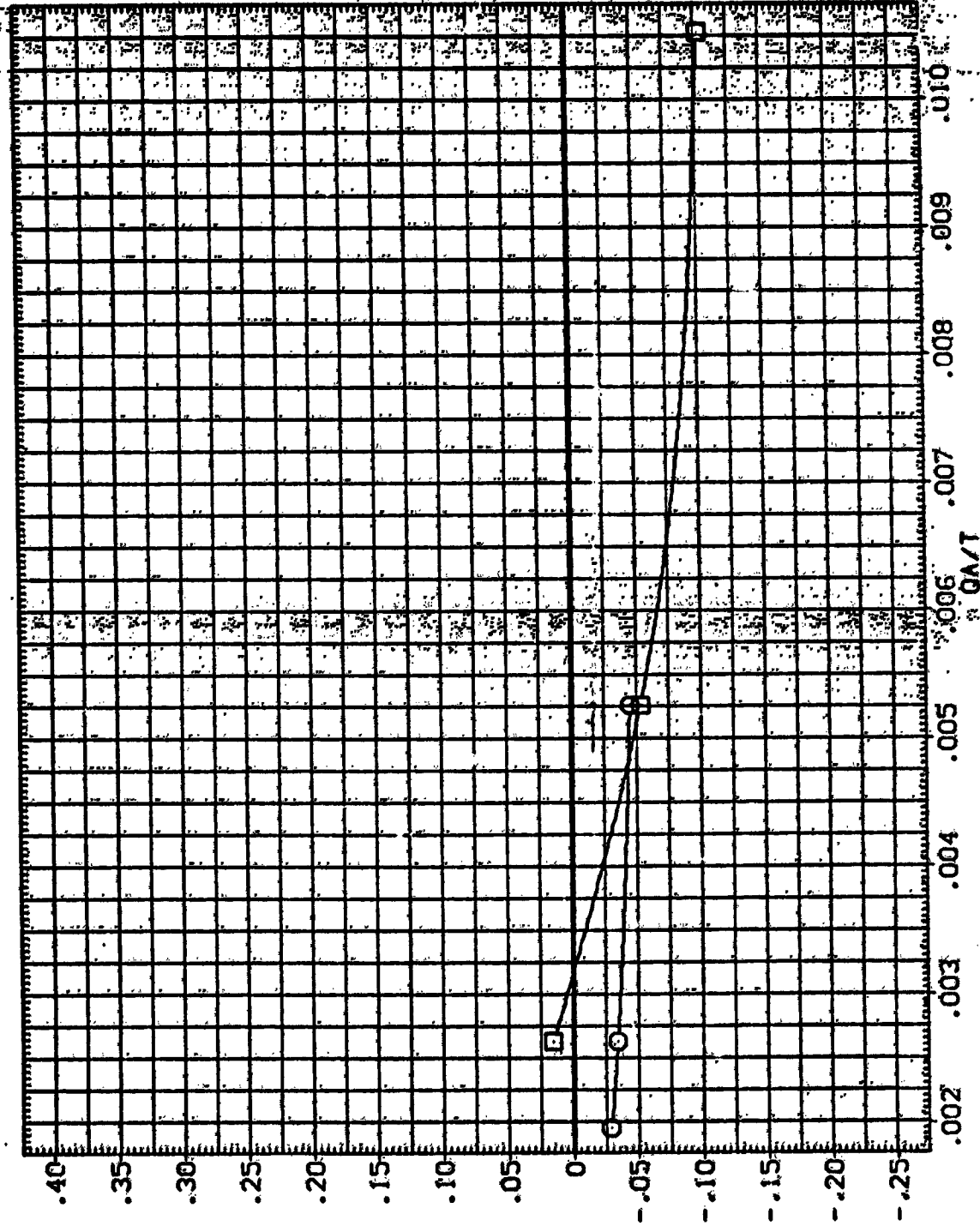


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

(C) ALPHA = -4.00

DAT SET SYMBOL: 8
 (SUJ00A) (SUJ00B)
 CONFIGURATION DESCRIPTION:
 LARC CPH 118 (Mk-22)
 LARC CPH 118 (Mk-22)
 ELEVON: .000
 NO. JET: 4.000
 BOFLAP: .000
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2690.000
 LREF: 474.6000
 BREF: 936.6900
 XMRP: 1076.7000
 YMRP: .0000
 ZMRP: 375.0000
 SCALE: .0100

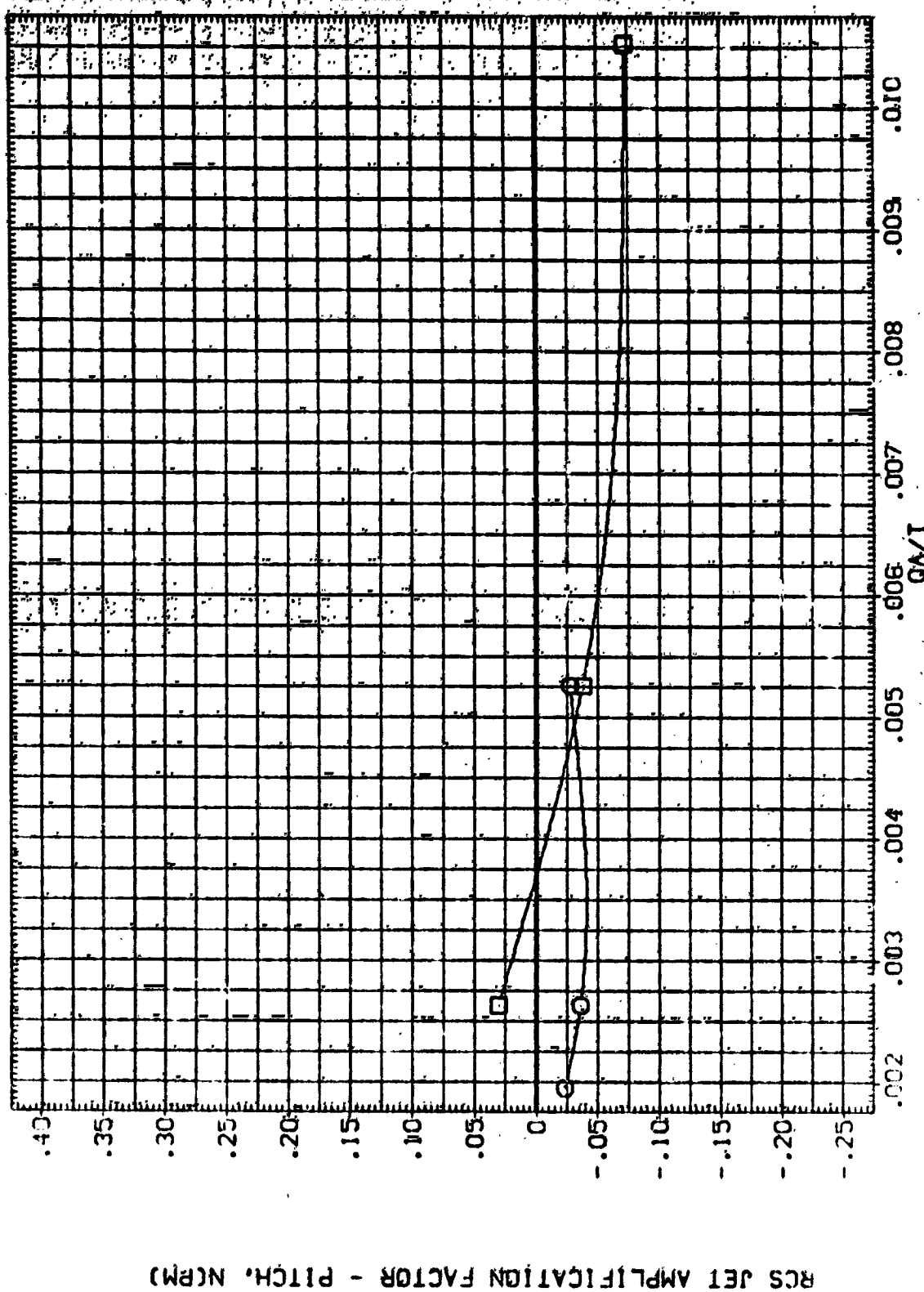


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

DATA SET SYMBOL: (SJ400A) B
 (SJ400B)
 CONFIGURATION DESCRIPTION:
 Q1N01 LARC CFHT 118 CVA-221
 Q1N03 LARC CFHT 118 CVA-221

ELEVON .000 .000
 NO. JET 4.000 2.000
 BOFLAP .000 .000
 BETA .000 .000
 REFERENCE INFORMATION:
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. TO
 YREF .0000 IN. TO
 ZREF 375.0000 IN. TO
 SCALE .0100

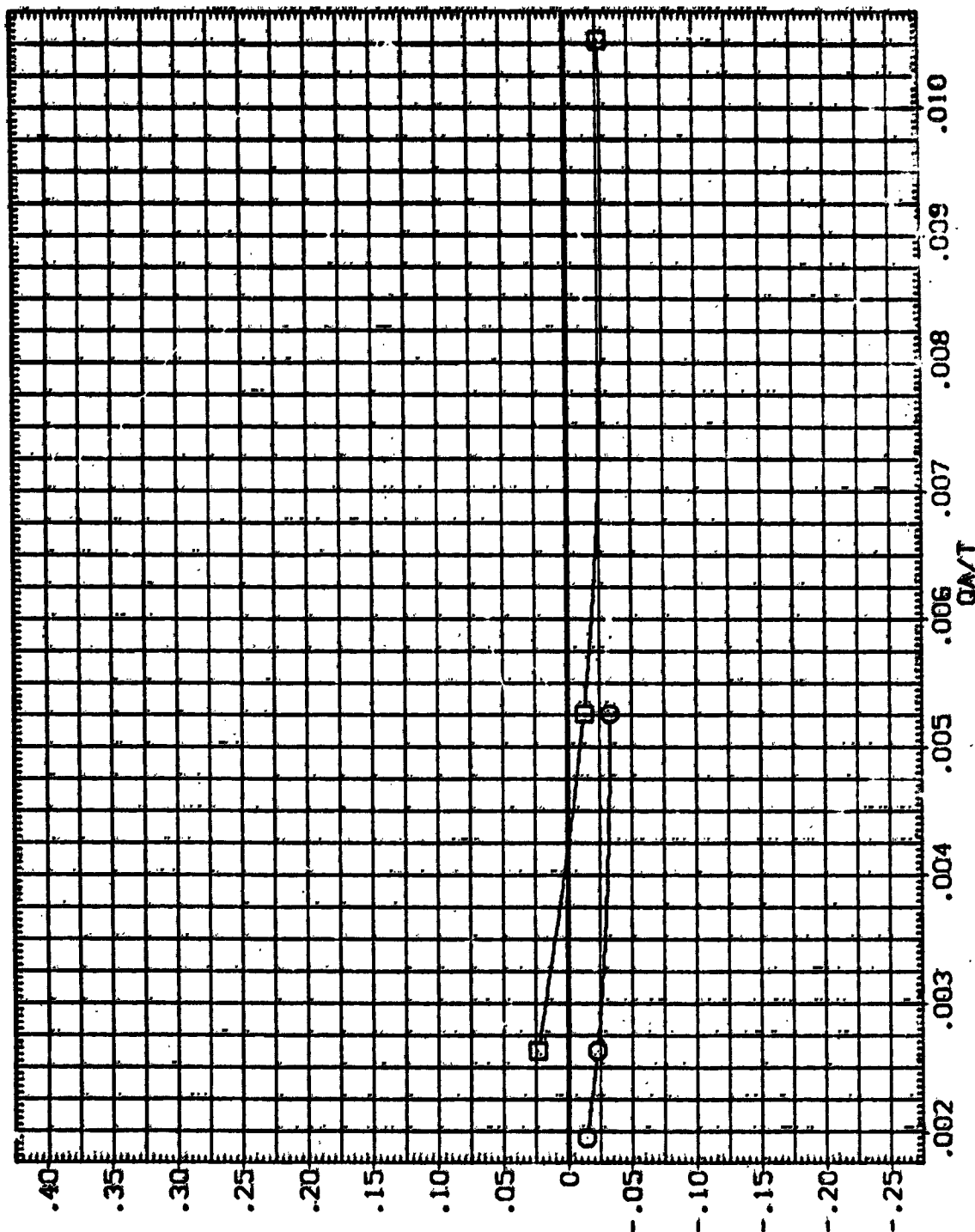


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N85

(E) ALPHA = .00

DATA SET SYMBOL: 01N31
 (51004)
 (51005)

CONFIGURATION DESCRIPTION:
 LARC CENT 118 (MA-22)
 LARC CF41 118 (MA-22)

ELEVON .000
 .000
 .000

NO. JET 4.000
 2.000
 .000

BOFLAP .000
 .000
 .000

BETA .000
 .000
 .000

REFERENCE INFORMATION:
 SQ. FT. 2630.0000
 INCHES 474.8390
 INCHES 938.6800
 IN. KG 1076.7000
 IN. VS 375.0000
 IN. ZD 375.0000
 SCALE .0100

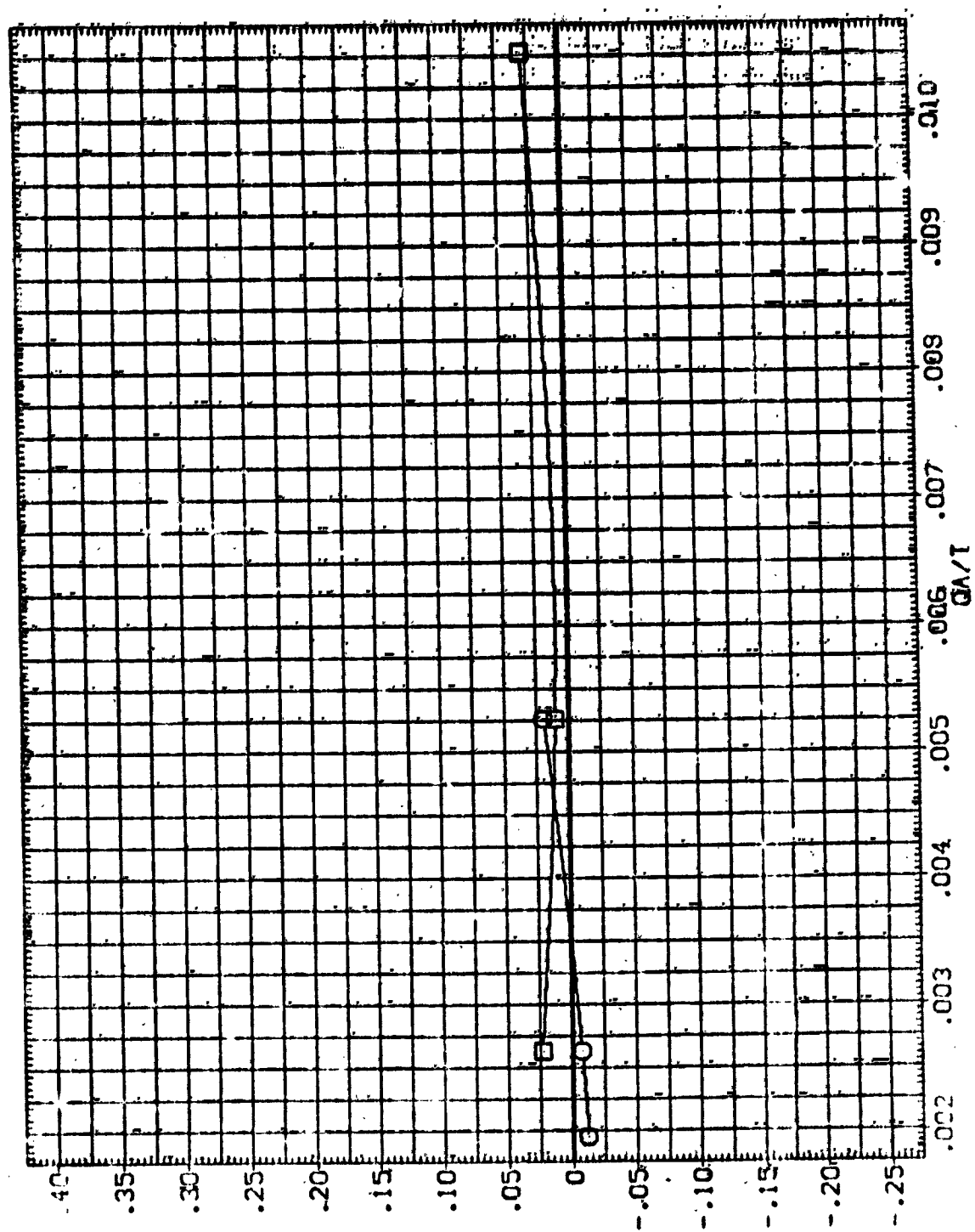
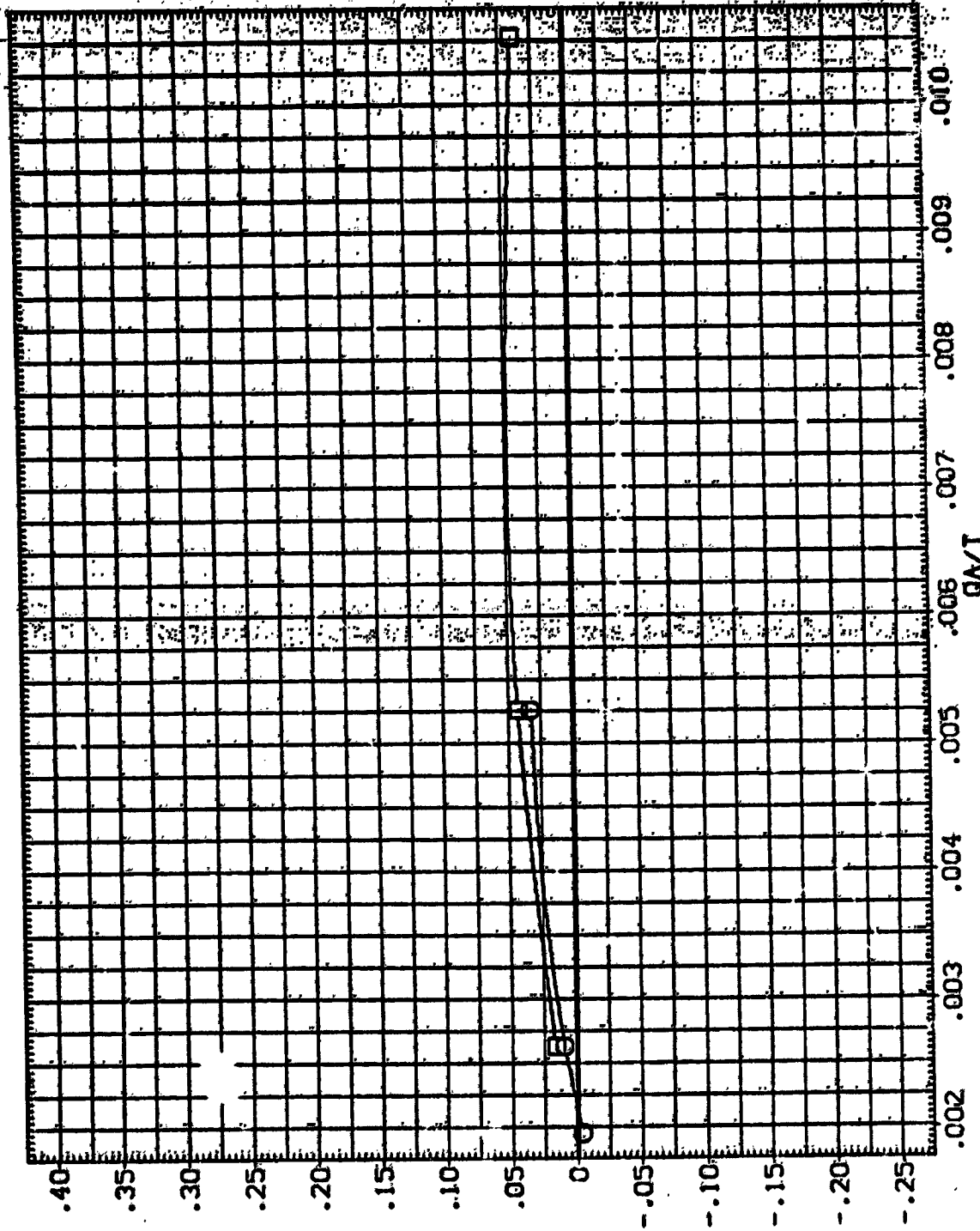


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS. N51-N85

DATA SET SYMBOL: ☐ (SJA004) ☐ (SJA005)
 CONFIGURATION DESCRIPTION:
 LARC GEHT 118 (RA-22)
 LARC GEHT 118 (RA-22)

ELEVON .000
 NO. JET 4.000
 BOFLAP .000
 BETA .000
 REFERENCE INFORMATION:
 SREF 2650.0000 INCHES
 LREF 474.8000 INCHES
 BREF 536.5800 INCHES
 XREF 1076.7000 INCHES
 YREF .0000 INCHES
 ZREF 375.0000 INCHES
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, NSI.N85

(G)ALPHA = 4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (S1A034) GINS1 LARC CMT 118 (MA-22)
 (S1A035) GINS2 LARC CMT 118 (MA-22)

ELEVON .000 .000
 .000 .000
 .000 .000

NO. JET .000 .000
 .000 .000
 .000 .000

BOFLAP .000 .000
 .000 .000
 .000 .000

BETA .000 .000
 .000 .000
 .000 .000

REFERENCE INFORMATION
 SPEC 2690.0000 INCHES
 LREF 474.8000 INCHES
 BREF 936.8000 IN. X0
 XMRP 1076.2000 IN. Y0
 YMRP .0000 IN. Z0
 ZMRP 375.0000 IN. Z0
 SCALE .0000

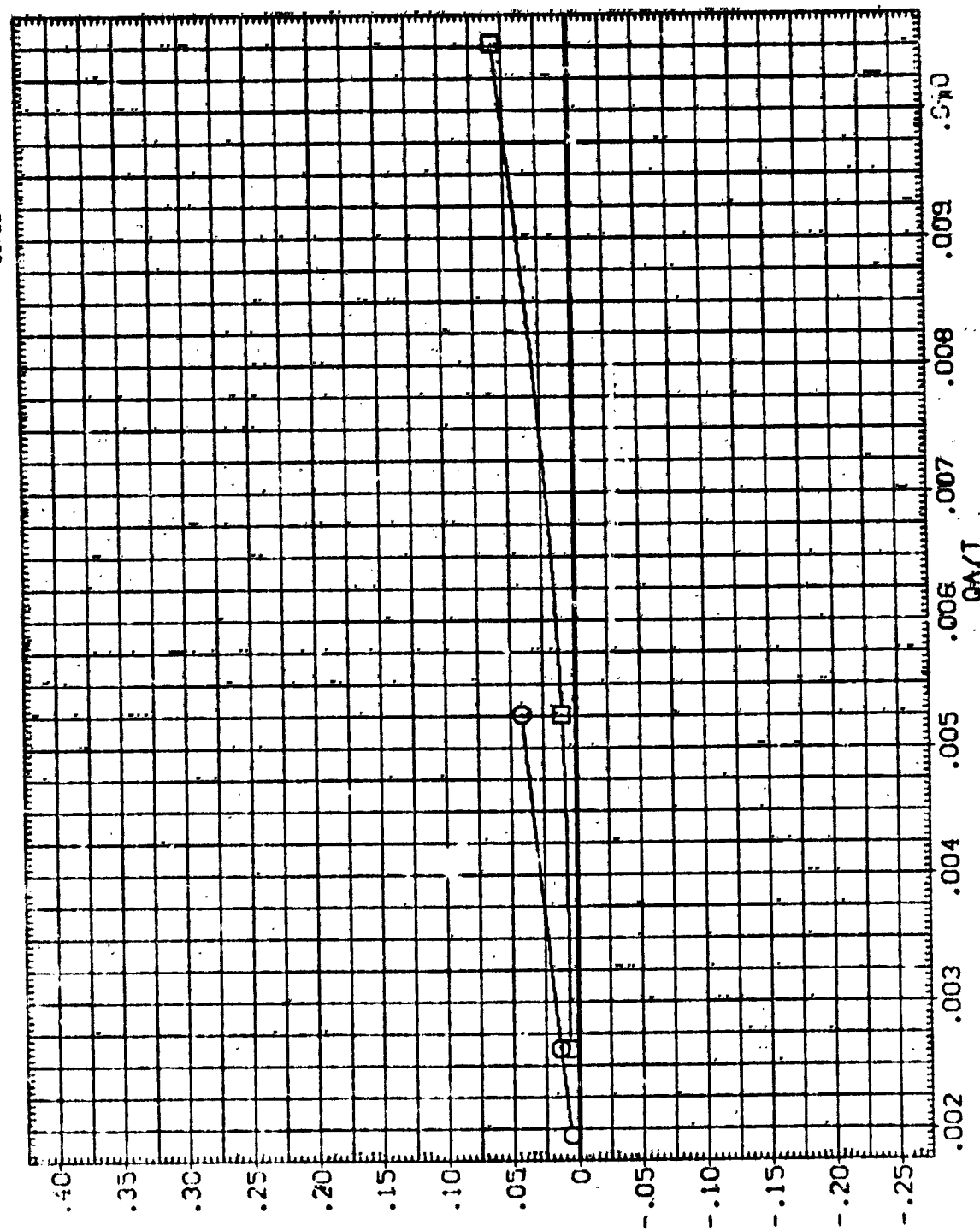


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(H) ALPHA = 6.00

DATA SET SYMBOL: (S1A004) 8 (S1A005.1) 8

CONFIGURATION DESCRIPTION: LARC CFMT 118 (MA-221) LARC CFMT 118 (MA-22)

ELEV: .000 .000

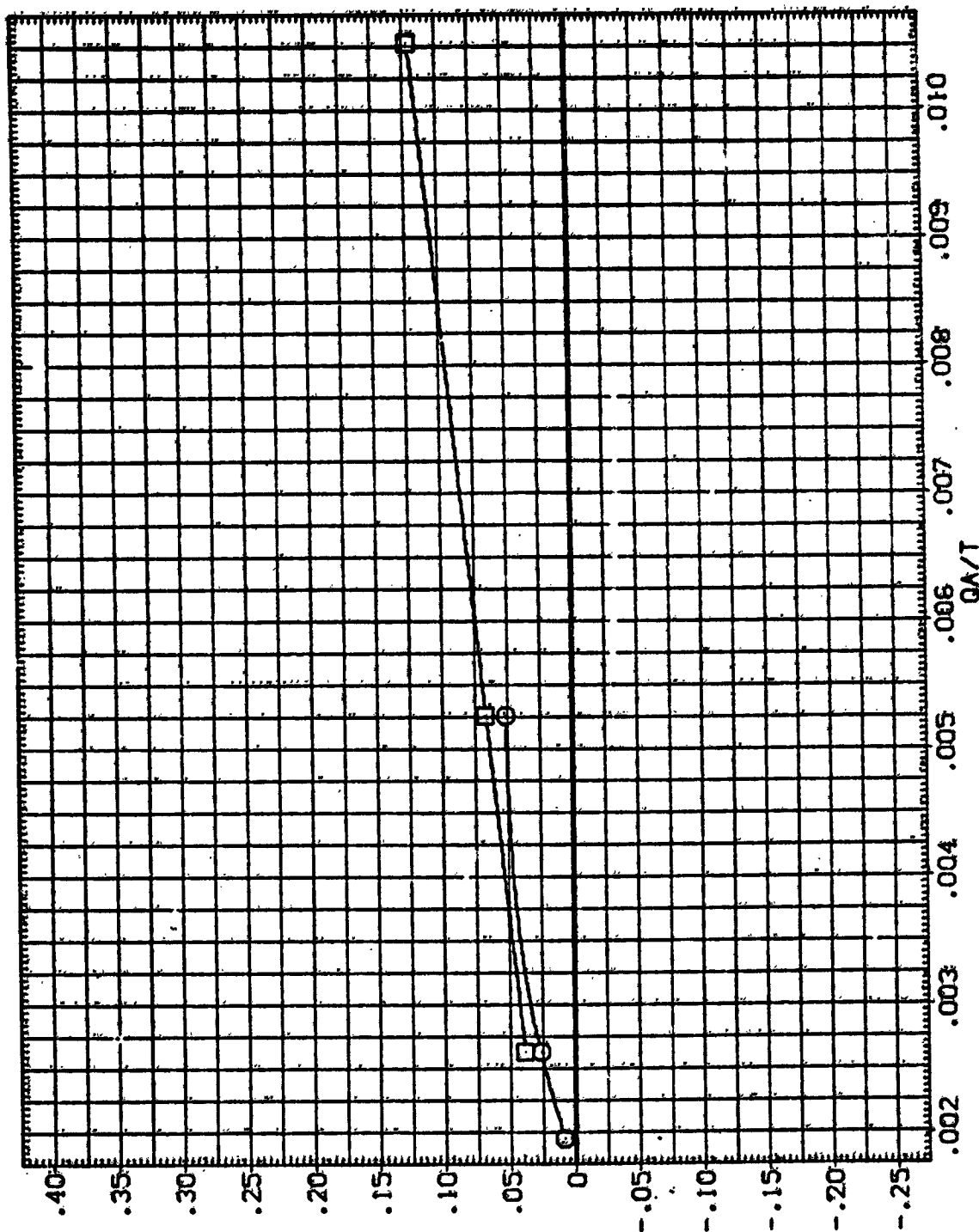
NO. JET: 4.000 2.000

BOFAP: .000 .000

BETA: .000 .000

REFERENCE INFORMATION:

	2590.0000	50. FT.
SREF	474.8000	INCHES
LREF	936.6800	INCHES
BREF	1876.7800	IN. X0
XMRP	.0800	IN. Y0
YMRP	379.0800	IN. Z0
ZMRP		
SCALE	.0100	

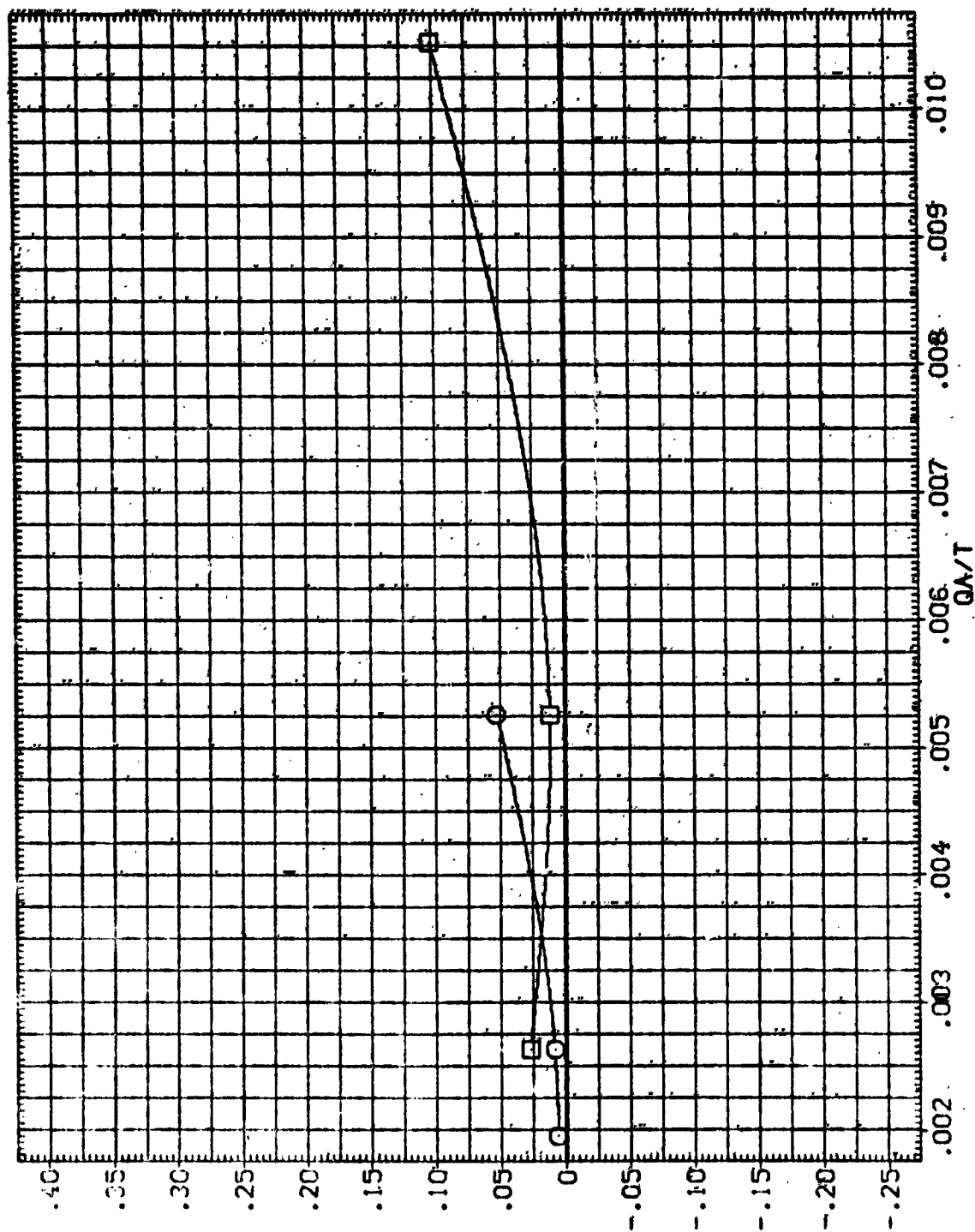


RCS JET AMPLIFICATION FACTOR - PITCH, (NPM)

FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS. N51,N85

(I)ALPHA = 8.00

DATA SET SYMBOL	QINS1	QINS5	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA034)			LARC CFHT 118 (NA-22)	.000	4.000	.080	.000	SREF 2690.0000
(SJA035)			LARC CFHT 118 (NA-22)	.008	2.000	.000	.000	LREF 474.8000
								BREF 936.6800
								XMRP 1076.7800
								YMRP .0000
								ZMRP 375.0000
								SCALE .0100
								SO. FT.
								INCHES
								IN. X0
								IN. Y0
								IN. Z0



RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

ALPHA = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA004) 8 LARC CFT 118 (MA-22)
 (SJA005) 8 LARC CFT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION
 .000 4.000 .000 .000 SREF 2690.0000 SQ. FT.
 .000 2.000 .000 .000 LREF 474.8000 INCHES
 XMRP 1006.7000 IN. 20
 YMRP .0000 IN. 20
 ZMRP 375.0000 IN. 20
 SCALE .0100

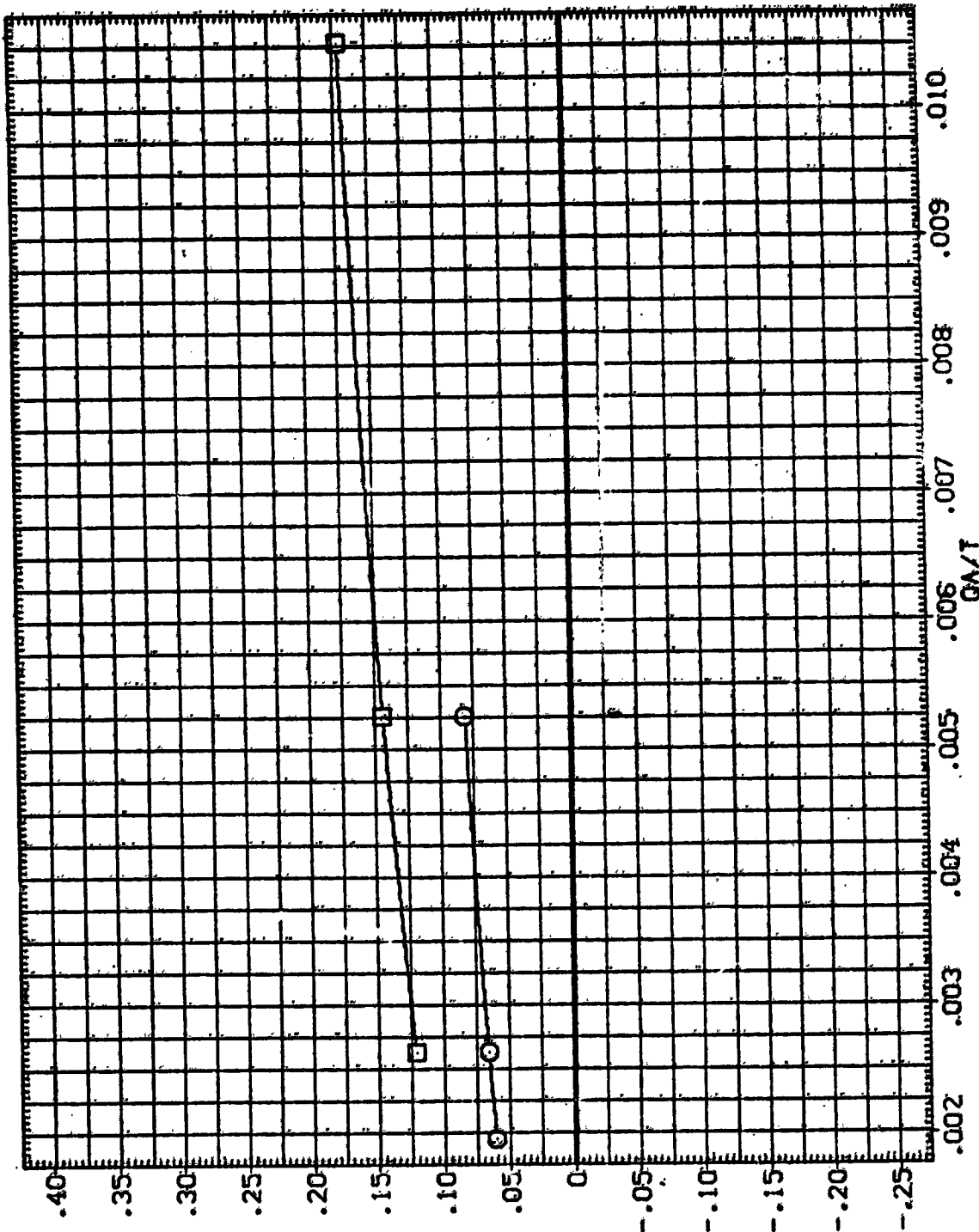


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(K)ALPHA = 15.00

DATA SET SYMBOL: 01NSA
 (SJA024)
 (SJA025)

CONFIGURATION DESCRIPTION:
 LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)

ELEVATION: .000
 .000
 .000

NO. JET: 4.000
 2.000

BOFLAP: .000
 .000

BETA: .000
 .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SO.FT.
 LREF: 474.8000 INCHES
 BREF: 936.5600 INCHES
 XREF: 1076.7600 IN. X0
 YREF: .0000 IN. Y0
 ZREF: 375.0000 IN. Z0
 SCALE: .0100

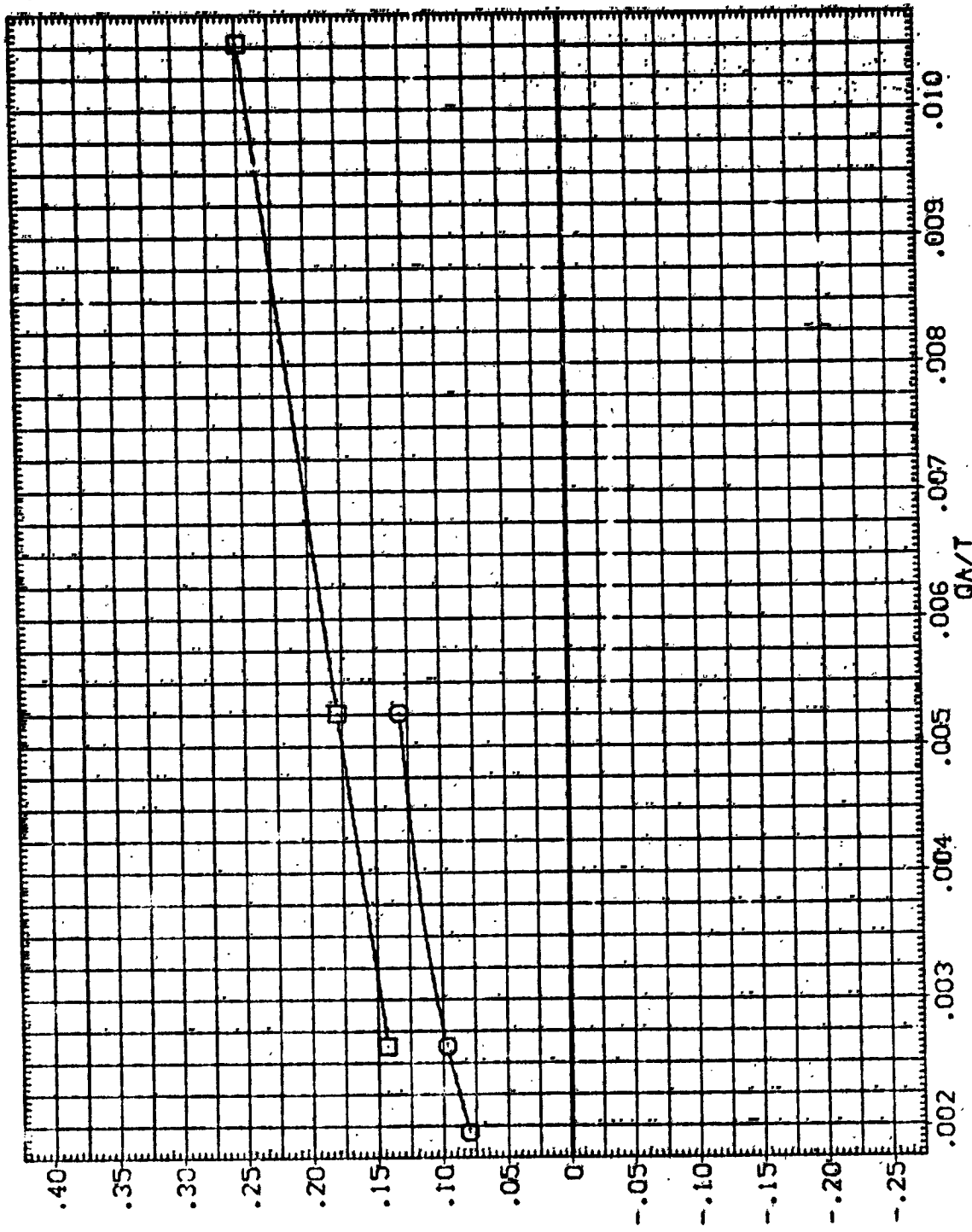


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

REFERENCE INFORMATION	
SREF	2690.0000' 50. FT.
LREF	474.8000' INCHES
BREF	936.6800' INCHES
XMRP	1076.7000' IN. X0
YMRP	.0000' IN. Y0
ZMRP	375.0000' IN. Z0
SCALE	.0100

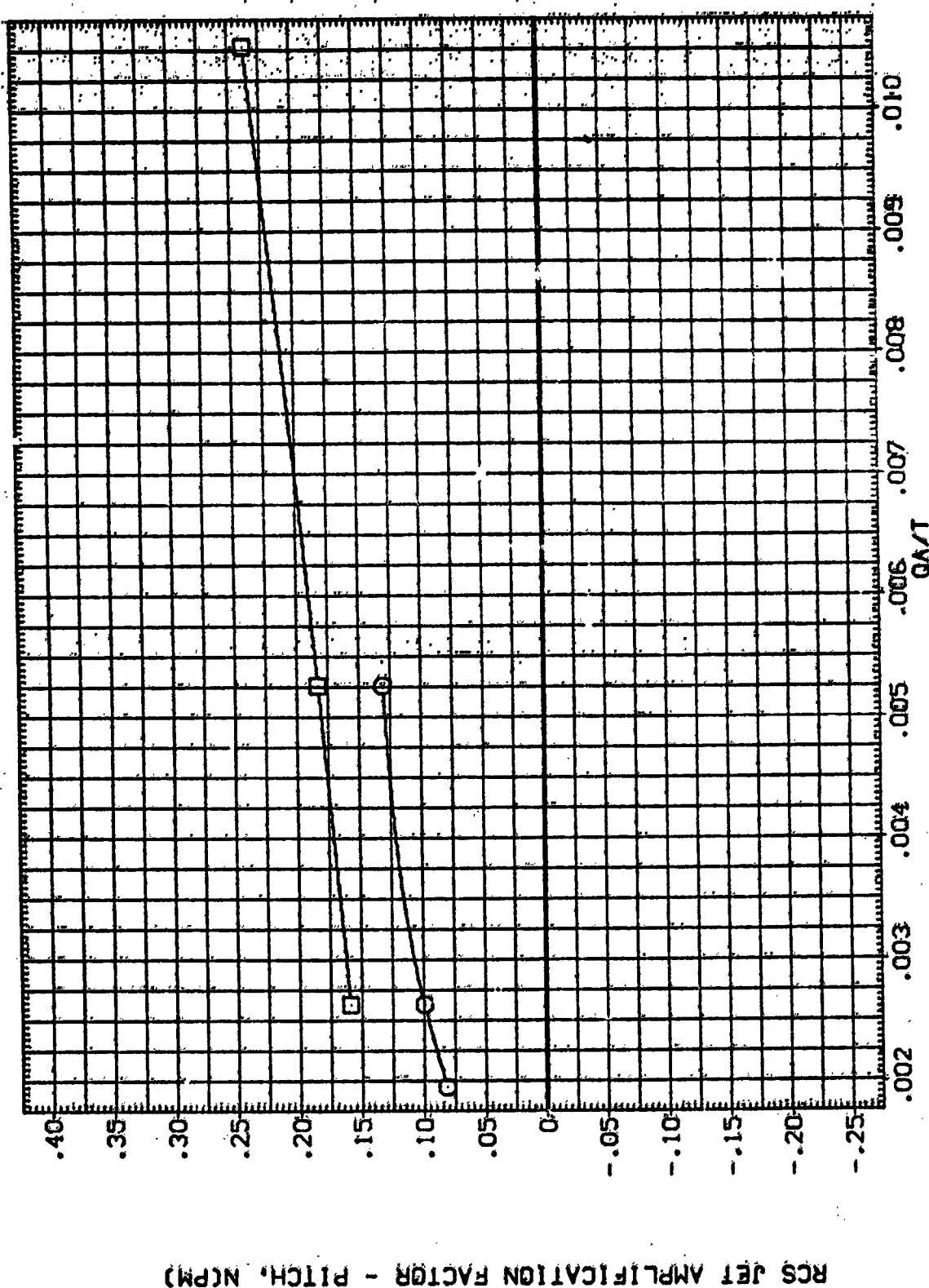


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS. N51-N85

(M) ALPHA = 25.00

DATA SET SYMBOL: (SJA004) (SJA005)

CONFIGURATION DESCRIPTION:
 CINS1 LARC CFHT 118 (MA-22)
 CINS5 LARC CFHT 118 (MA-22)

ELEVON: .000
 NO. JET: 4.000
 BDFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF 2890.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7800 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 373.0800 IN. Z0
 SCALE .0100

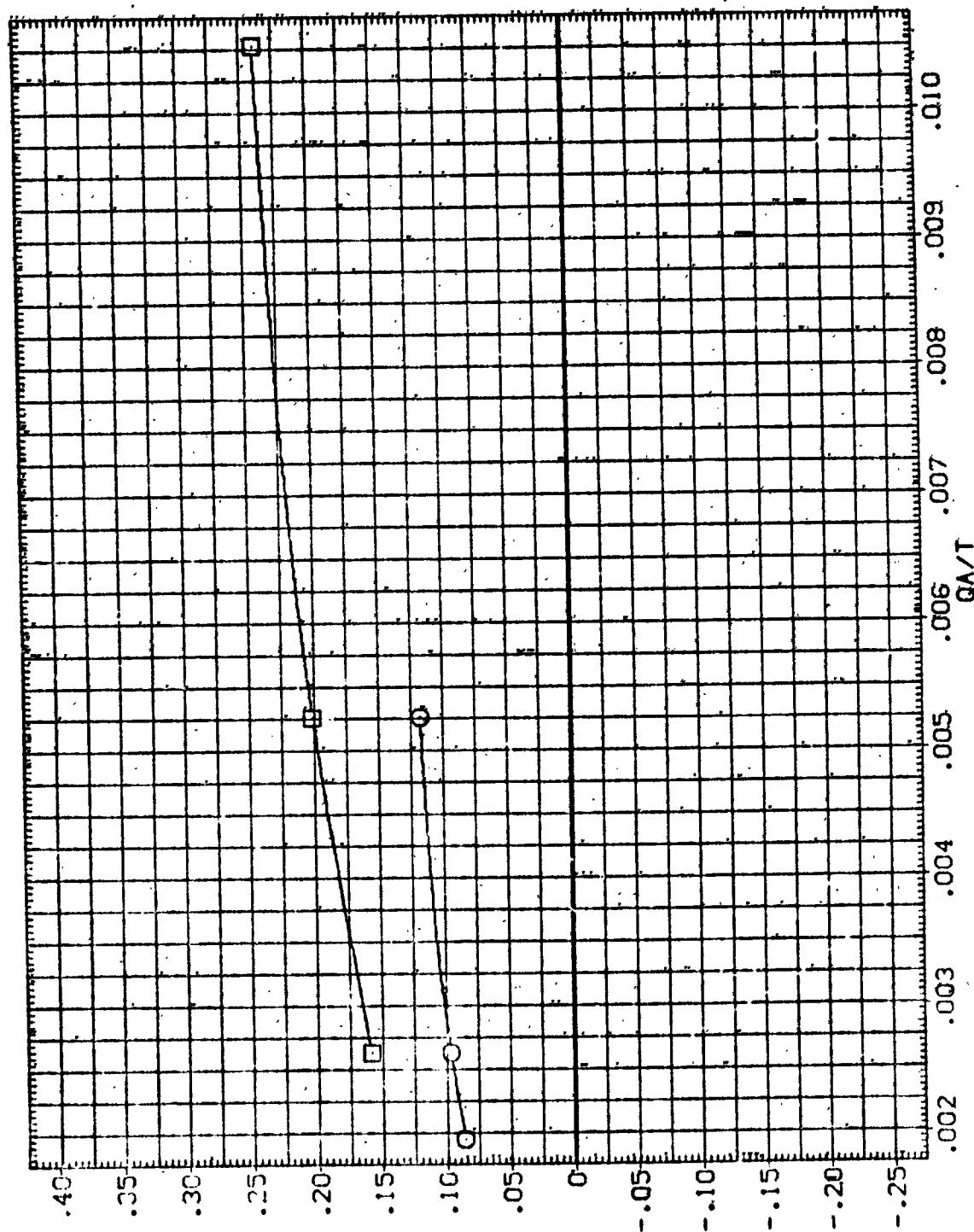


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(N)ALPHA = 30.00

DATA SET SYMBOL (SJA004)
 (SJA005)

CONFIGURATION DESCRIPTION
 QIN51 LARC CFMT 118 (MA-22)
 QIN65 LARC CFMT 118 (MA-22)

ELEVON: .000
 .000

NO. JET 4.000
 2.000

BDFLAP .000
 .000

BETA .000
 .000

REFERENCE INFORMATION
 SREF 2680.0000 SG.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. TO
 YMRP .0800 IN. TO
 ZMRP 375.0000 IN. TO
 SCALE .0100

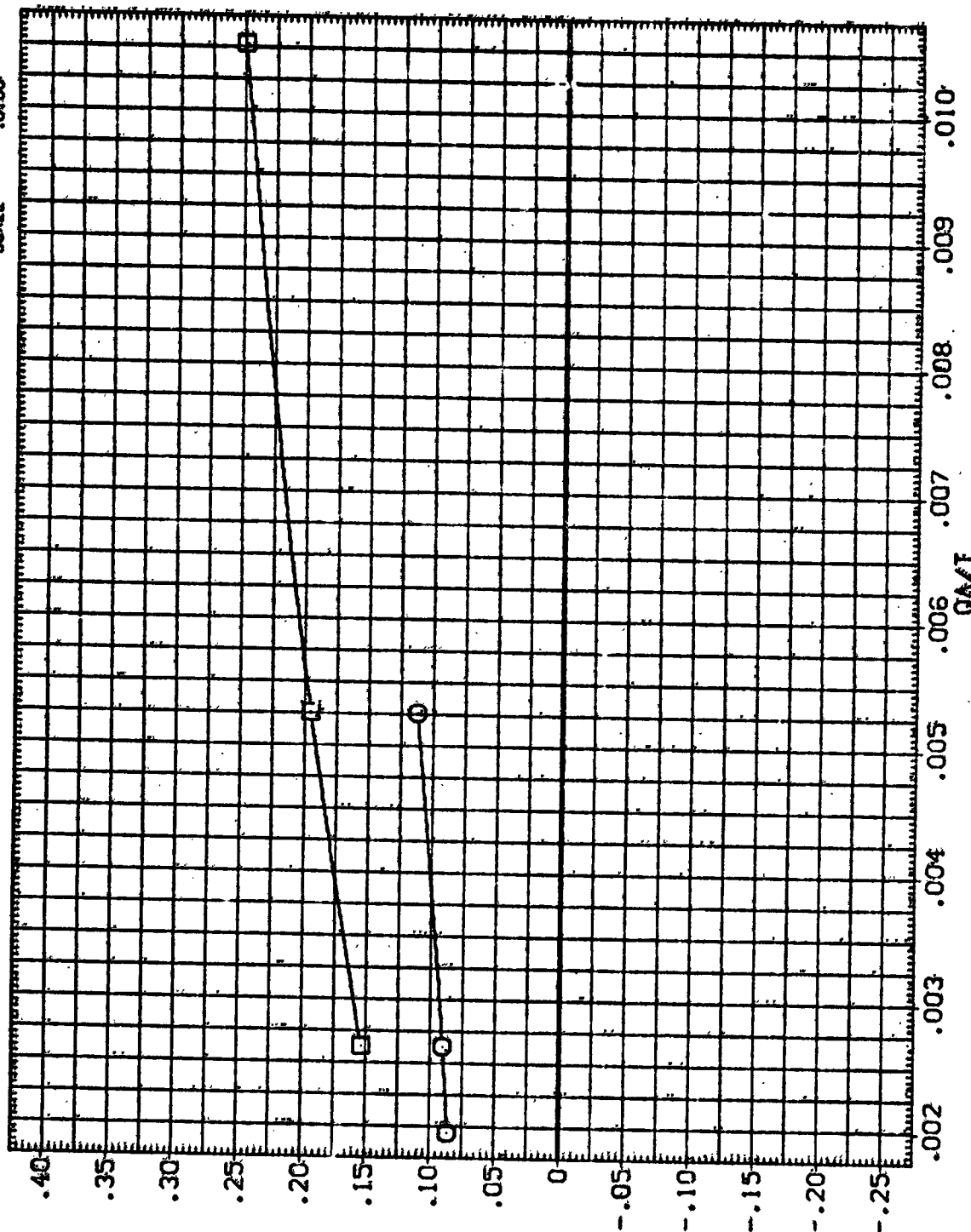



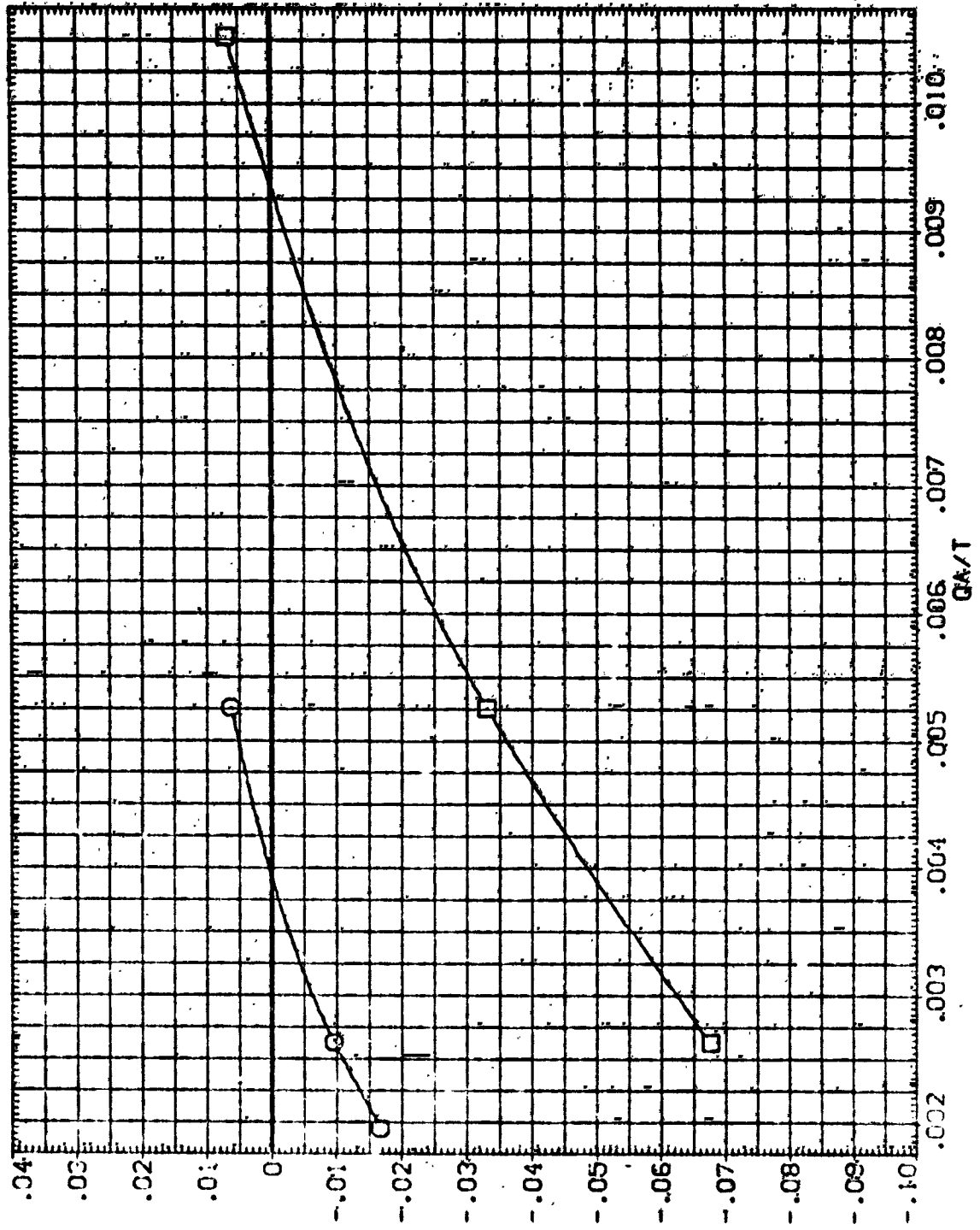
FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

(O) ALPHA = 35.00

DATA SET SYMBOL (SJA004) (SJA005)  CONFIGURATION DESCRIPTION
 CINS1 LARC CPHT 118 (NA-22)
 CINS2 LARC CPHT 118 (NA-22)

ELEVON .000 .000
 NO. JET 4.000 2.000
 BDFLAP .000 .600
 BETA .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 536.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCAF)

FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

CALPHA = -8.00

DATA SET SYMBOL: (SJA004) B
 CONFIGURATION DESCRIPTION: Q1N51 LARC CFHT 118 (MA-22)
 Q1N85 LARC CFHT 118 (MA-22)

ELEVON: .000
 NO. JET: 4.000
 BDFLAP: .000
 BETA: .000
 REFERENCE: 2690 IN, 150 FT.
 SREF: 474 IN, 100 INCHES
 LREF: 936 IN, 800 INCHES
 BRFP: 1076 IN, 10 IN
 XMRP: 375 IN, 20 IN
 YMRP: 375 IN, 20 IN
 ZMRP: 375 IN, 20 IN
 SCALE: 100

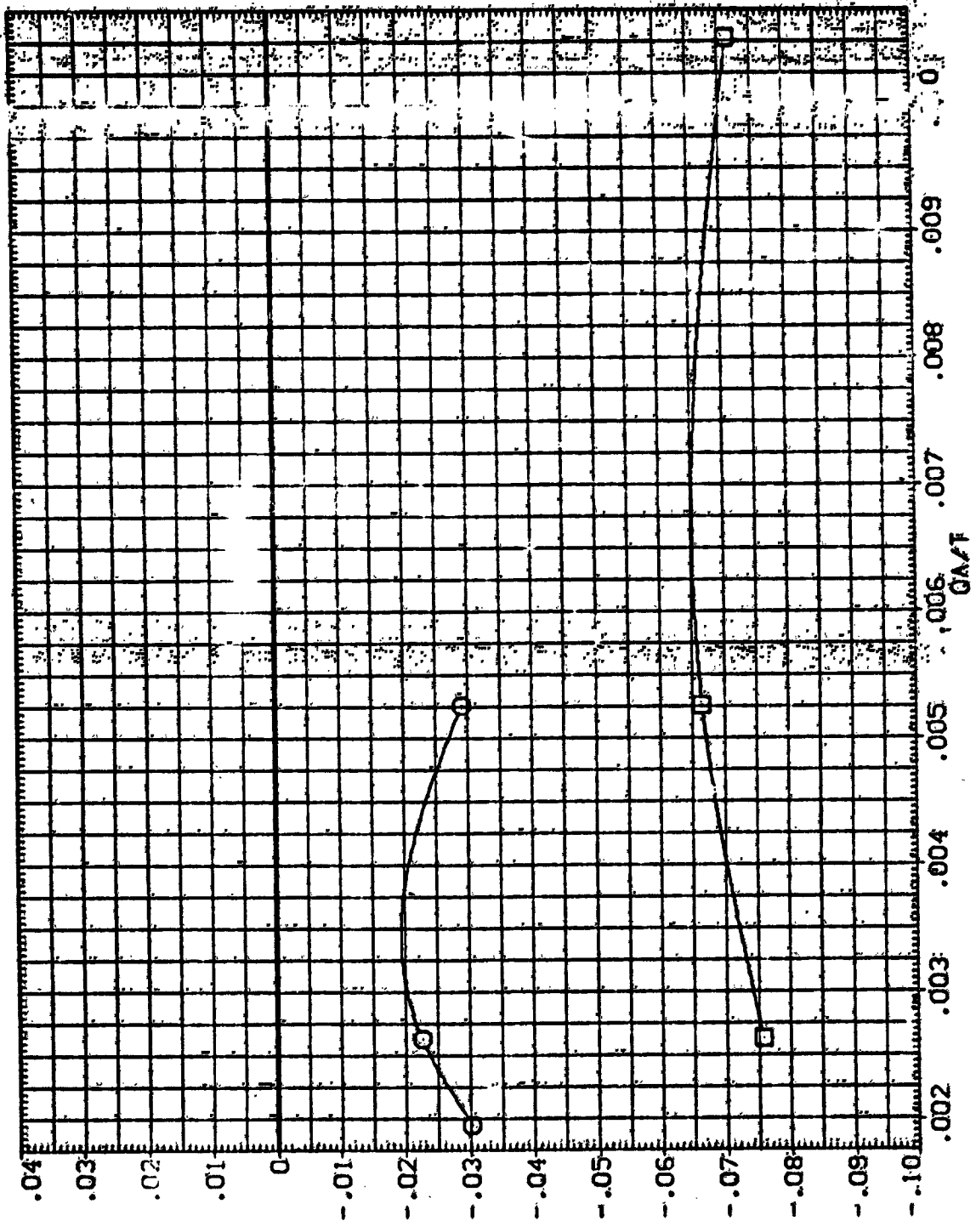


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(B) ALPHA = -6.00

DATA SET SYMBOL (SPAC04) (SAP0005) ☐ QINS1 QINS2

CONFIGURATION DESCRIPTION
LARC CFHT 118 (MA-22)
LARC CFHT 118 (MA-22)

ELEVOR NO-JET .000 .000
BOFLAP .000 .000
BETA .000 .000

REFERENCE INFORMATION
SREF 2630.0000 50.00
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XREF 1076.7000 IN. X
YREF .0000 IN. Y
ZREF 375.0000 IN. Z
SCALE .0100

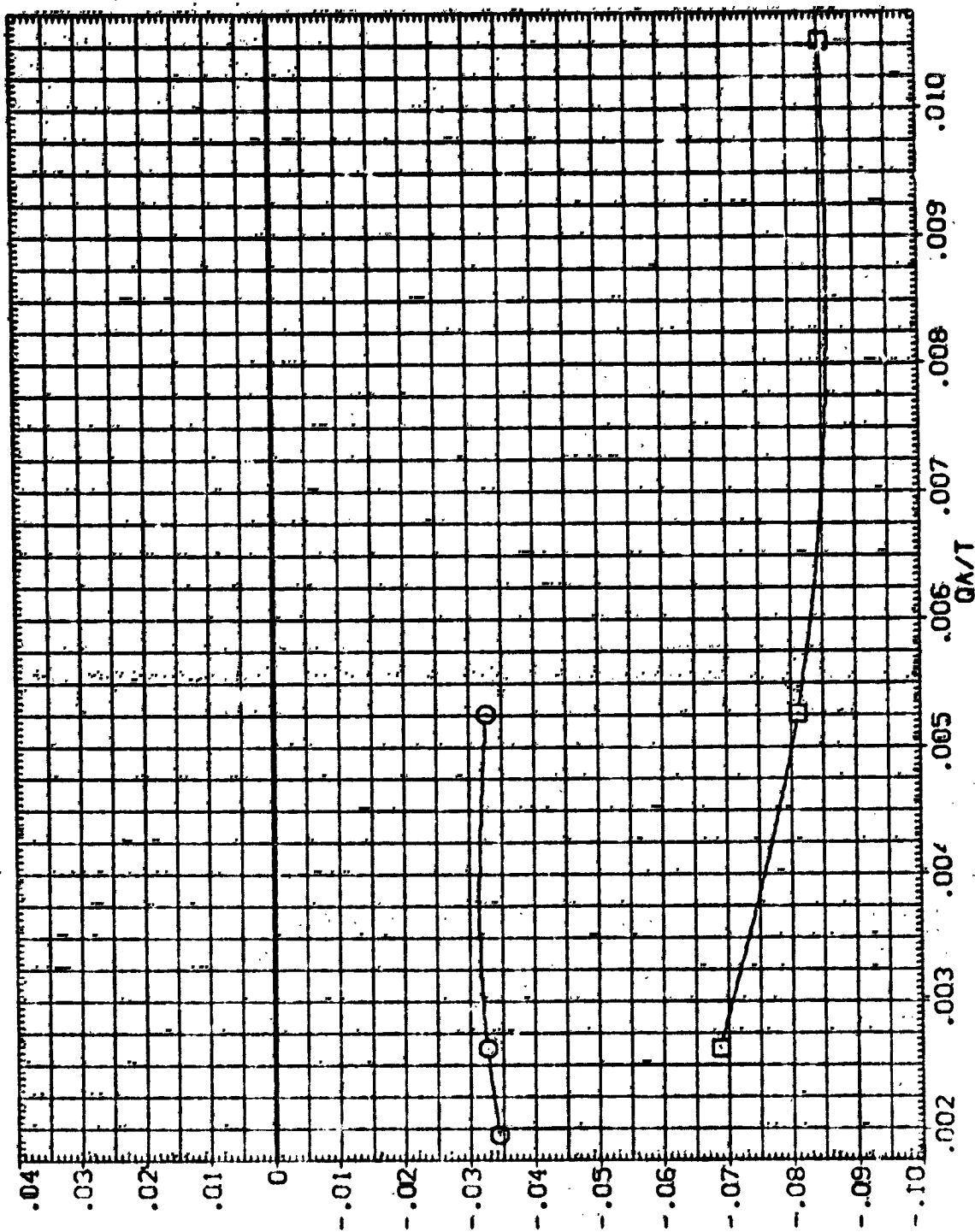


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

DATA SET SYMBOL: 8
 (SJA004): 01N51
 (SJA005): 01N85

CONFIGURATION DESCRIPTION:
 LARC CFMT 118 (NA-22)
 LARC CFMT 118 (NA-22)

ELEVON: .000
 NO. JET: 4.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SRBF: 2590.0000
 LREF: 474.8000
 BRFP: 936.6800
 XMRP: 1076.7000
 YMRP: 2000
 ZMRP: 375.0000
 SCALE: .0100

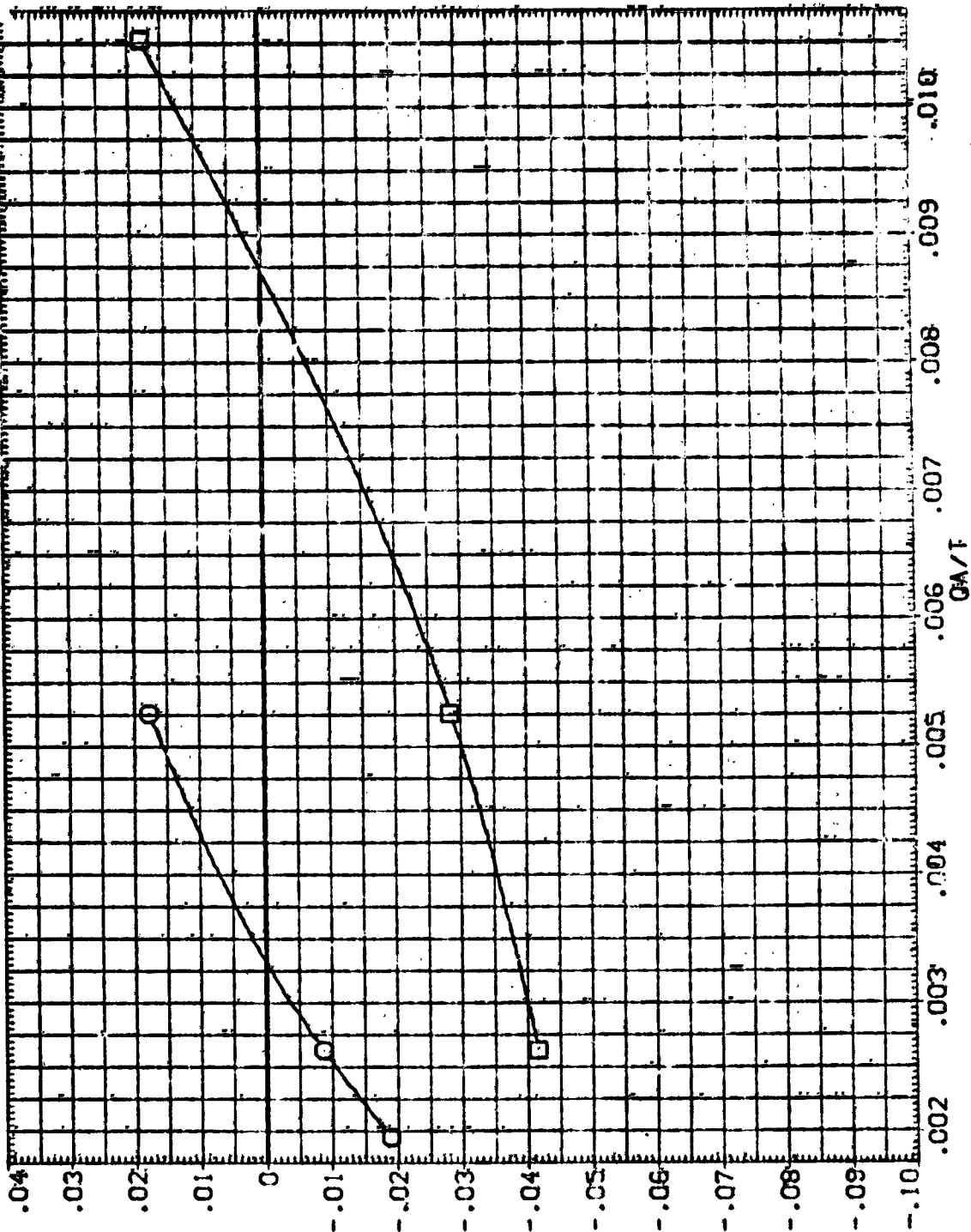


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS. N51, N85

(C)ALPHA = -2.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	B. FLAP	BETA	REFERENCE INFORMATION
(SJA004)	01N51 LARC CPH 118 (MA-22)	.000	4-000	.000	.000	SREF 2690.0000 50. FT
(SJA005)	01N85 LARC CPH 118 (MA-22)	.000	2-500	.000	.000	LREF 474.8000 INCHES
						BREF 936.6800 INCHES
						XREF 1076.7000 IN. X
						YREF .0000 IN. Y
						ZREF 375.0000 IN. Z
						SCALE .0100

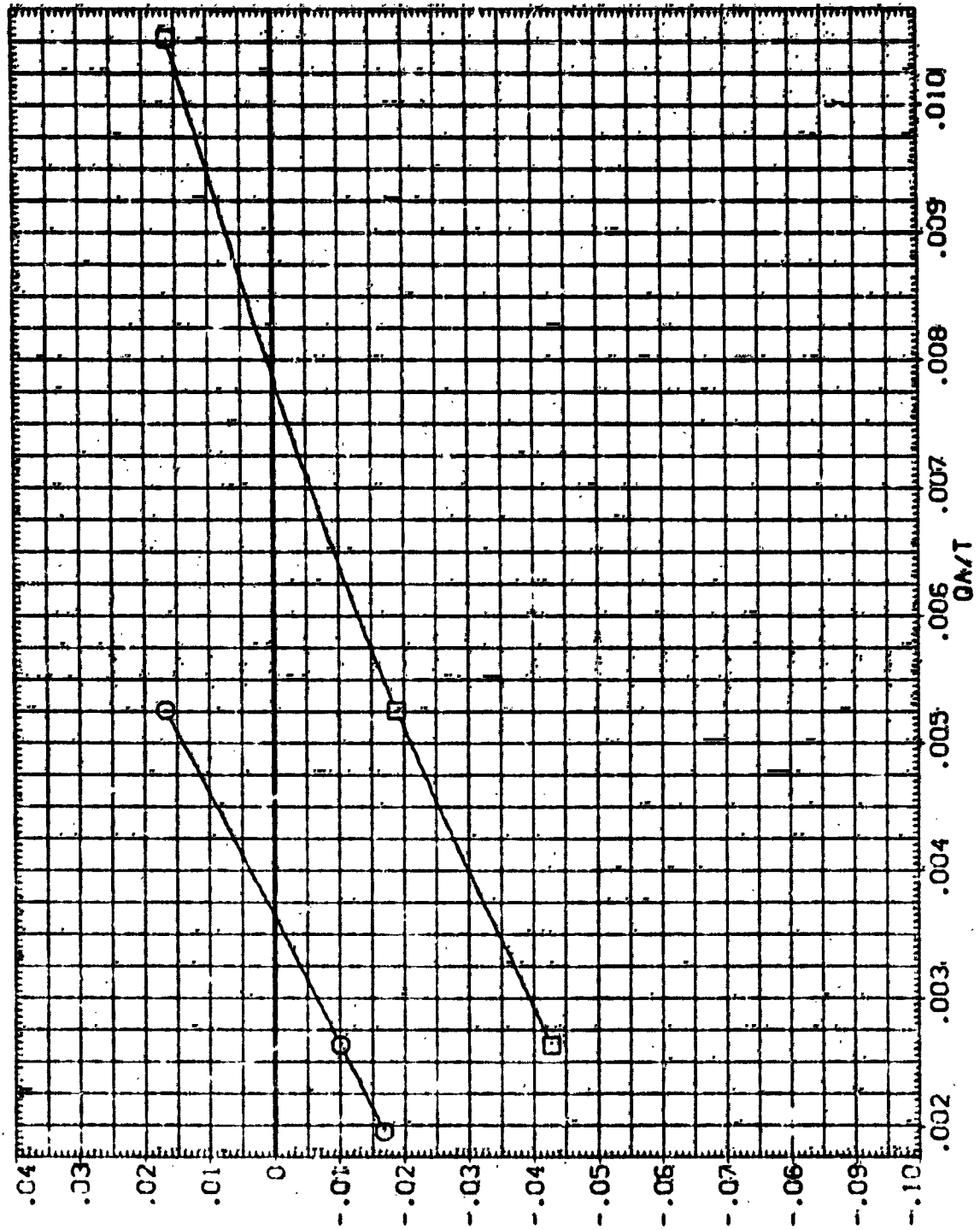


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS. N51, N85

DATA SET SYMBOL: 01N51
 (SJA004)
 (SJA005)

CONFIGURATION DESCRIPTION:
 LARE CFMT 118 (HA-22)
 LARE CFMT 118 (HA-22)

ELEVON: .000
 NO. JET: 4.000
 BDFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0390
 LREF: 474.8500
 BREF: 936.6800
 XREF: 1076.7000
 YREF: .0000
 ZREF: 373.0000
 SCALE: .0100

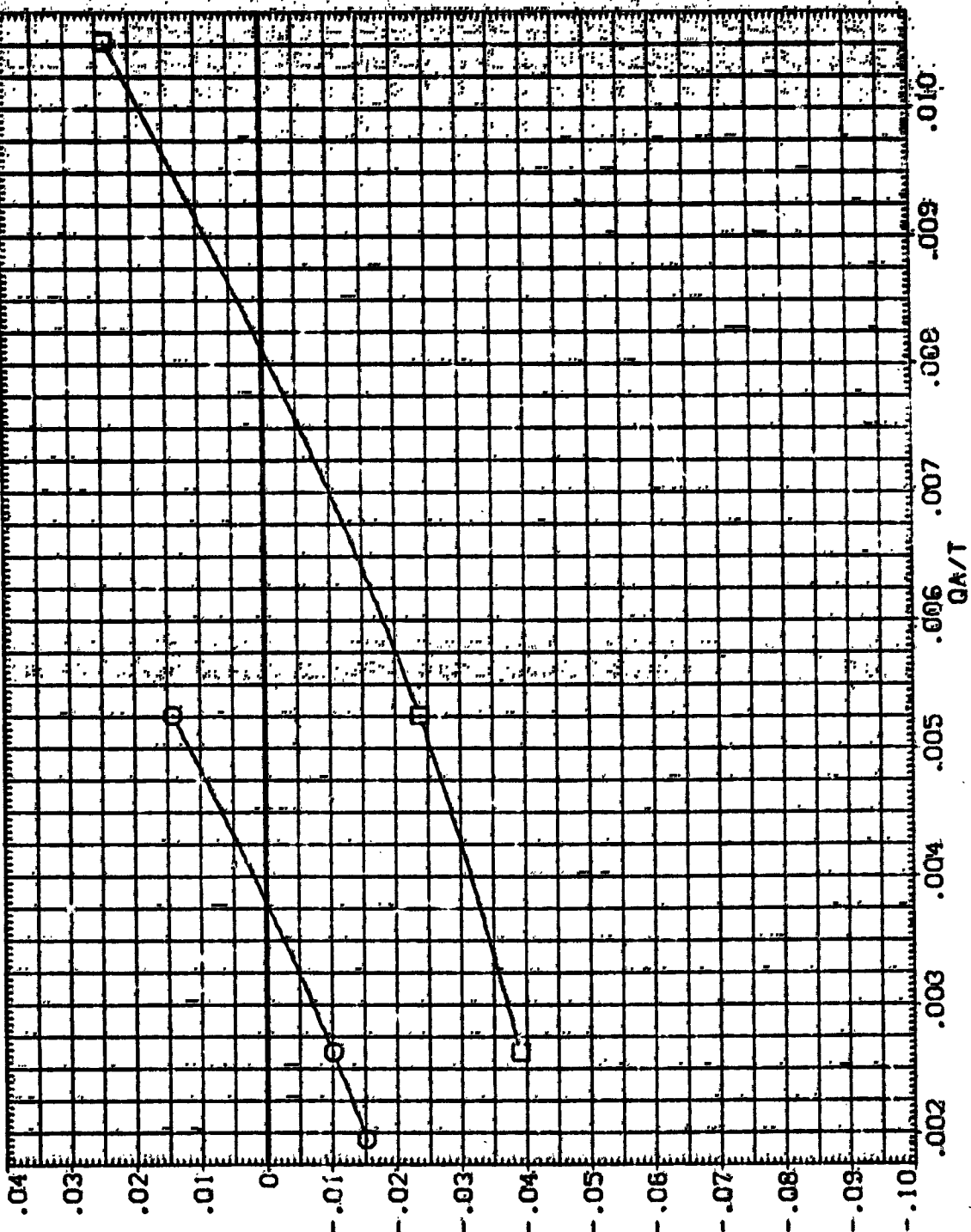


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(F) ALPHA = 2.00

REFERENCE INFORMATION
 SREF 2690.0800 SQ. FT.
 LREF 474.8000 INCHES
 BREF 336.6800 INCHES
 XMRP 1076.7000 IN. TO
 YMRP .0800 IN. TO
 ZMRP 375.0000 IN. TO
 SCALE .0100

ELEVON NO. JET BDRAP BETA
 .000 4.000 .000
 .000 2.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (1) M1 Q1N51 LARC CFHT 118 (MA-22)
 (2) M5 Q1N52 LARC CFHT 118 (MA-22)

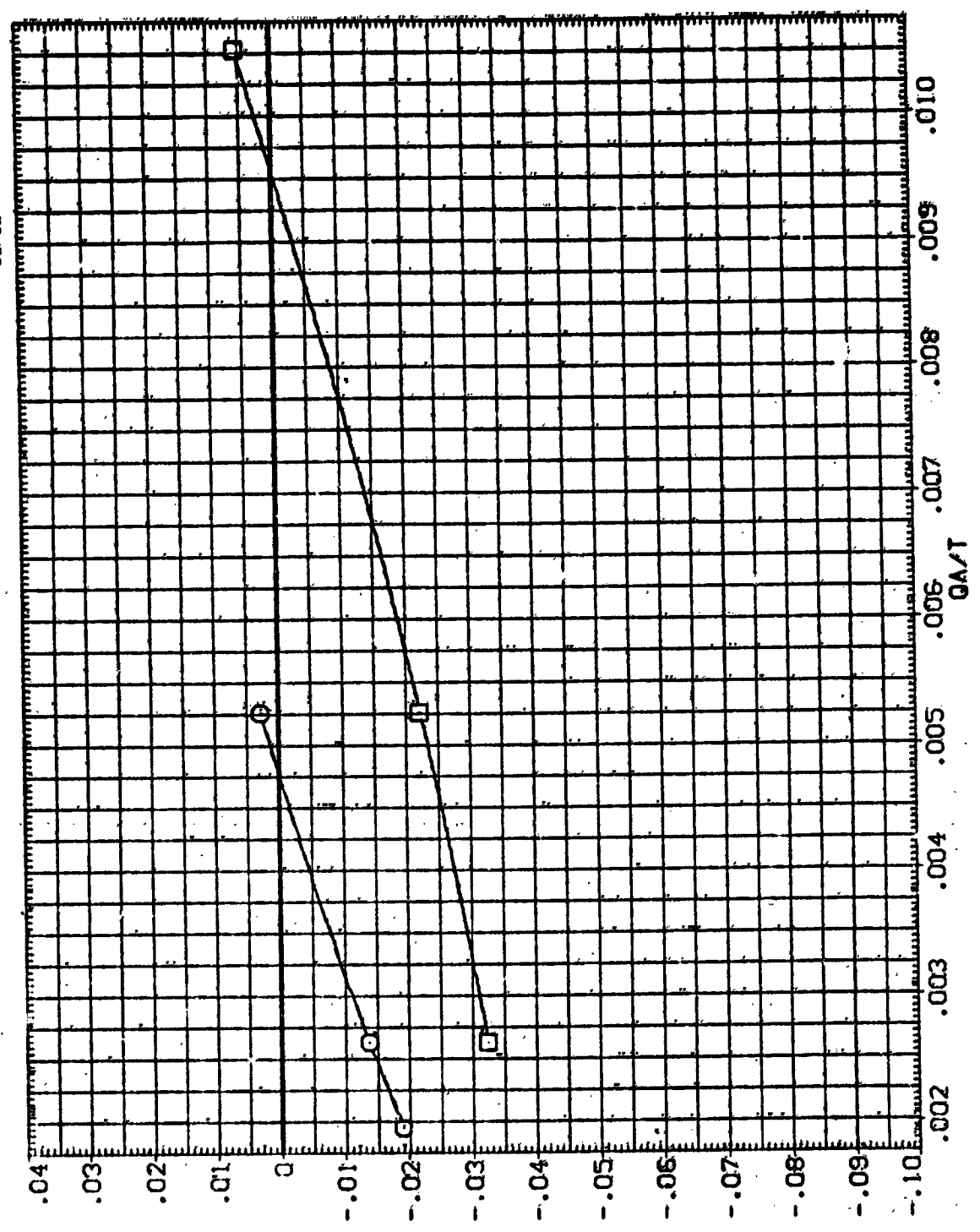

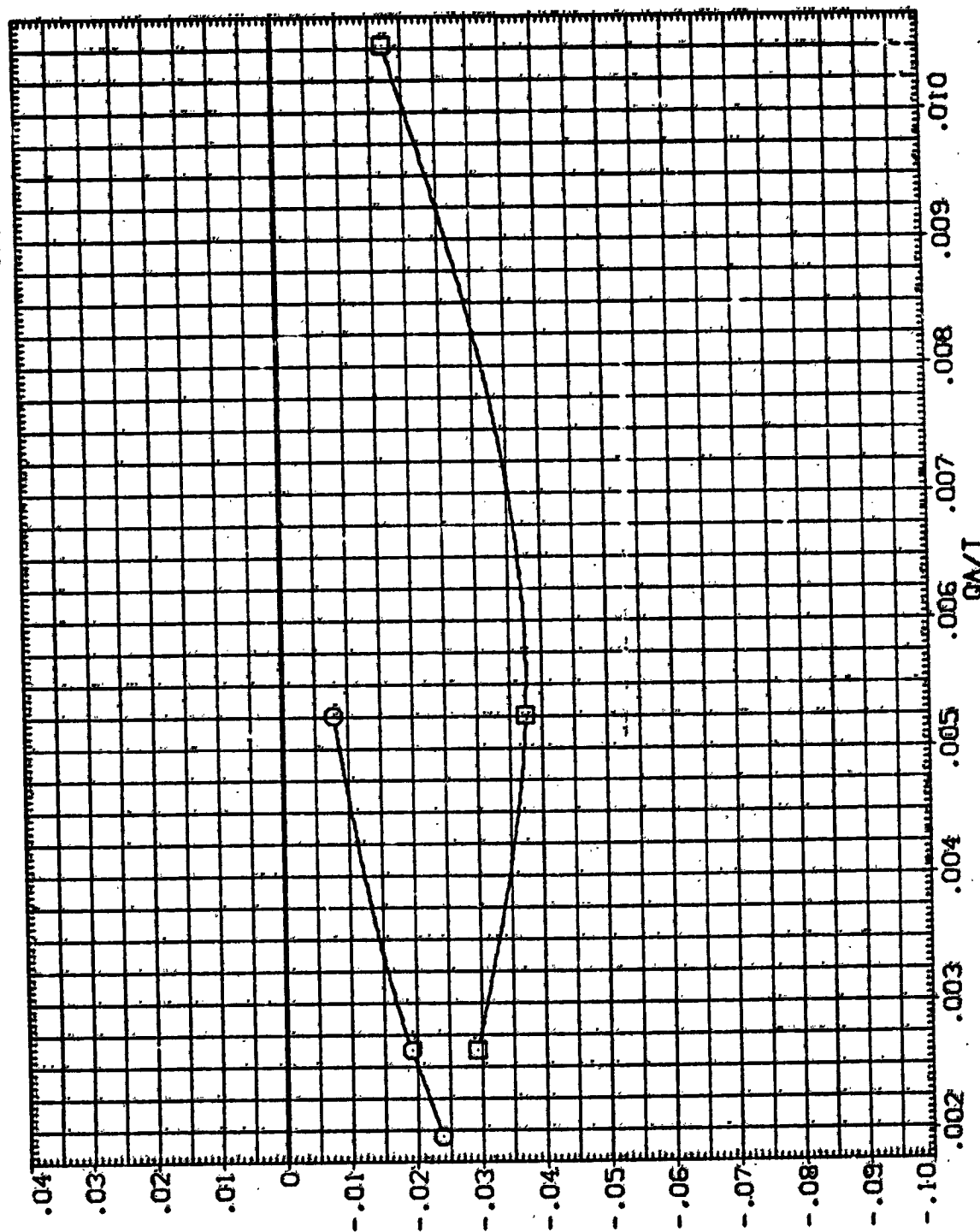


FIGURE 26. EFFECT OF MULTIPLE JET RES FIRINGS, N51,N85

(G)ALPHA = 4.00

DATA SET SYMBOL: (SIAD04)  (SIAD03)
 CONFIGURATION DESCRIPTION: LARC CFMT 118 (MA-22)
 QIN51 QIN85

ELEVON: .000
 NO. JET: 4.000
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8800 INCHES
 BREF: 936.6800 INCHES
 XPRP: 1076.7000 IN. X0
 YPRP: .0000 IN. Y0
 ZPRP: 375.0000 IN. Z0
 SCALE: .0100

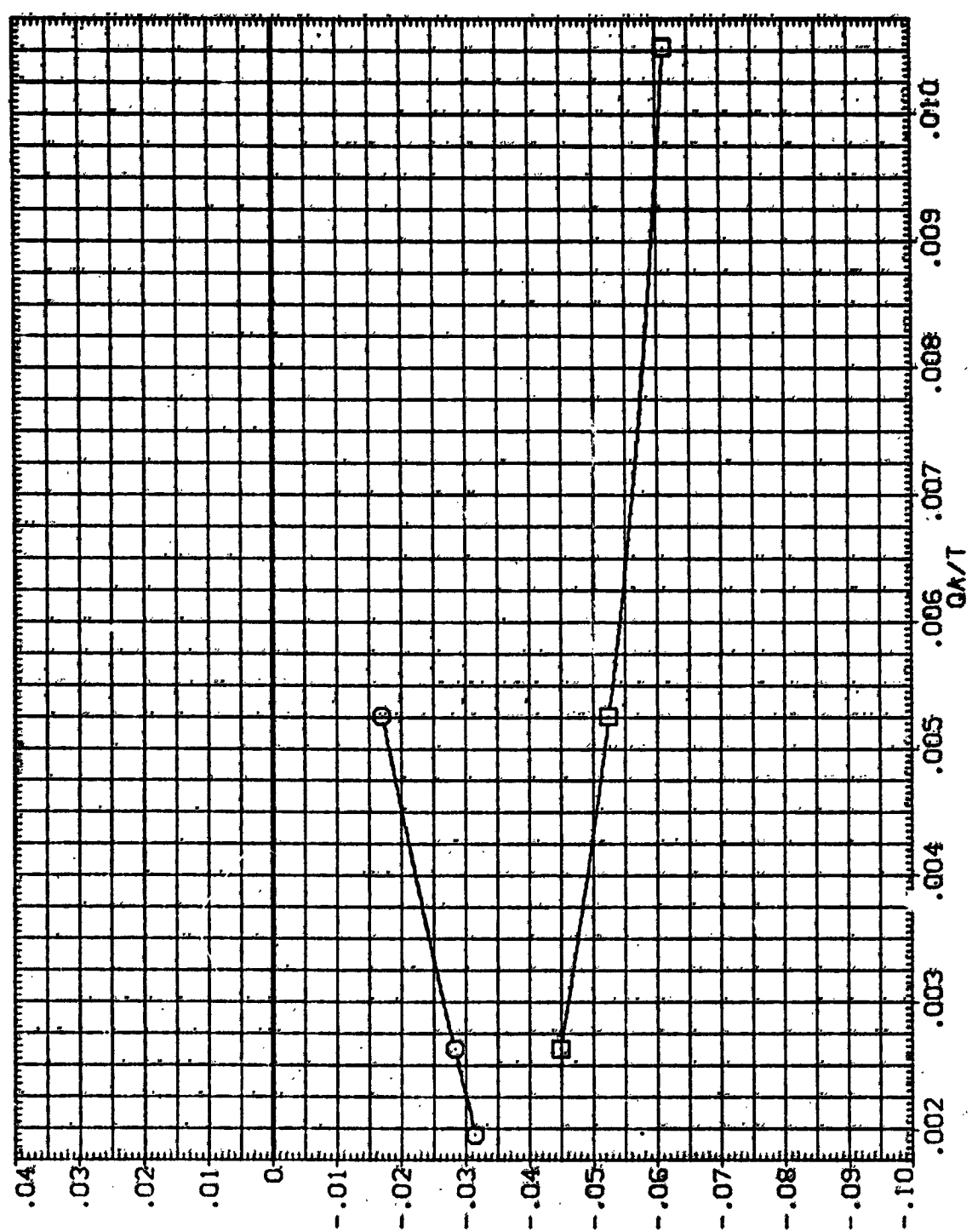


RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, (NCAF)

FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

(H)ALPHA = 6.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJ0004)	LARC CFMT 118 (NA-22)	.000	4.800	.000	.000	SREF 2690.0000 50. FT.
(SJ0005)	LARC CFMT 118 (NA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
						BREF 936.6800 INCHES
						XMRP 1076.7000 IN. X
						YMRP .0000 IN. Y
						ZMRP 3075.0000 IN. Z
						SCALE .0000



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCAF

FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(I) ALPHA = 8.00

DATA SET SYMBOL: (SJA004) (SJA005)
 CONFIGURATION DESCRIPTION: LARC CFHT 118 (MA-221)
 LARC CFHT 118 (MA-221)

ELEVON: .000
 NO. JET: 4.000
 BSFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 268
 LREF: 47
 BREF: 93
 YMRP: 107
 ZMRP: 375
 SCALE: 3100
 SO. FT.: 2000
 INCHES: 8000
 IN. KG: 5600
 IN. VO: 7000
 IN. ZO: 3000

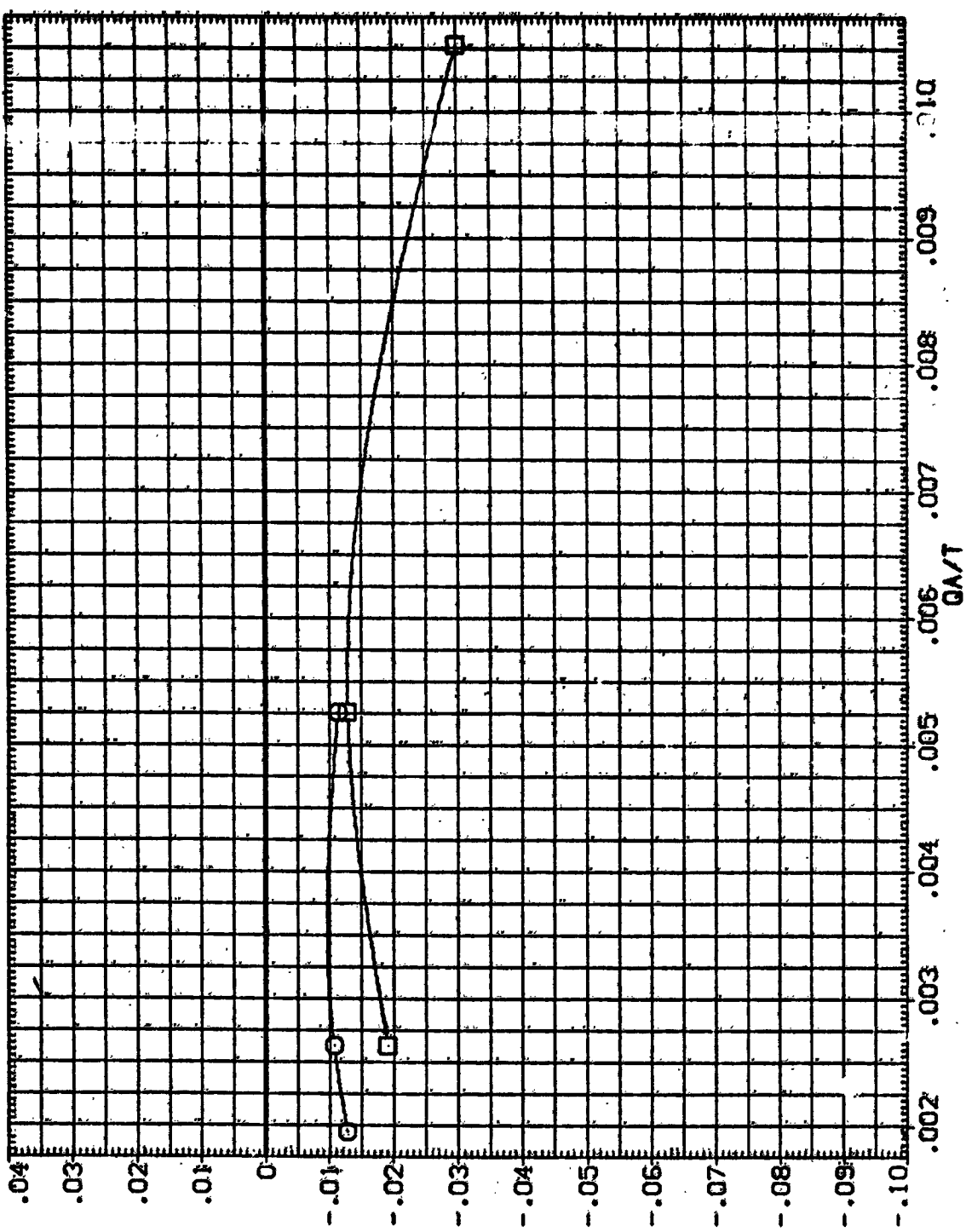


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

(JJALPHA = 10.00)

DATA SET SYMBOL (SJA004) 8 (SJA005) 8
 CONFIGURATION: DESCRIPTION
 01N51 LARC CFHT 118 (MA-22)
 01N85 LARC CFHT 118 (MA-22)

ELEVON .000 .000
 NO. JET 4.000 2.000
 80% LAP .000 .000
 BETA .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. 10
 YREF .0800 IN. 10
 ZREF 375.0000 IN. 20
 SCALE .0100

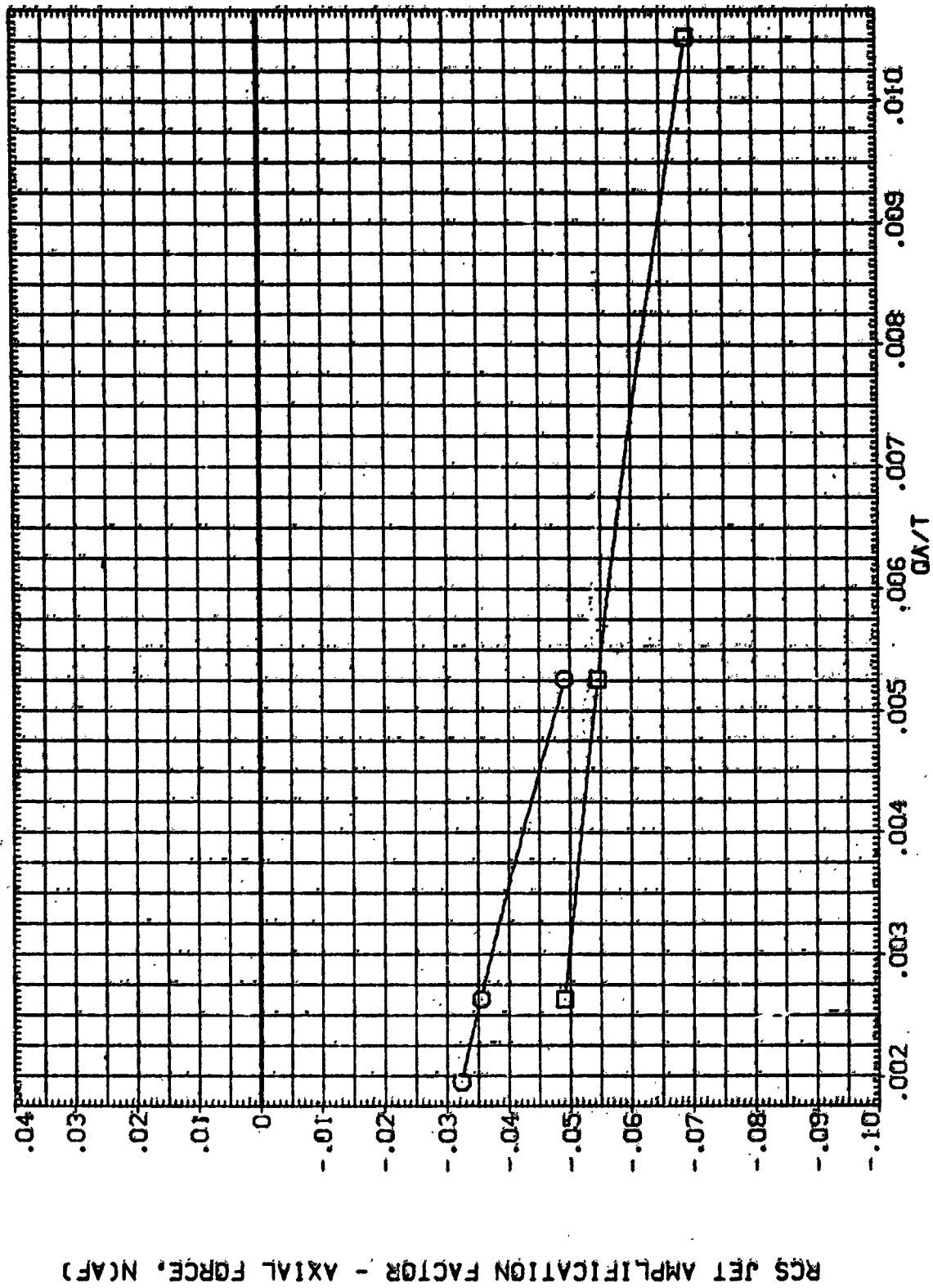


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N85

(K)ALPHA = 15.00

DATA SET SYMBOL: (SJAD04)
 CONFIGURATION: LARC GFHT 118 (RA-22)
 DESCRIPTION: LARC GFHT 118 (RA-22)

ELEVON: .000
 NO. JET: 4.000
 BOFLAP: .000
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XREF: 1076.2000 IN. 10
 YREF: .0000 IN. 10
 ZREF: 375.6000 IN. 20
 SCALE: .0100

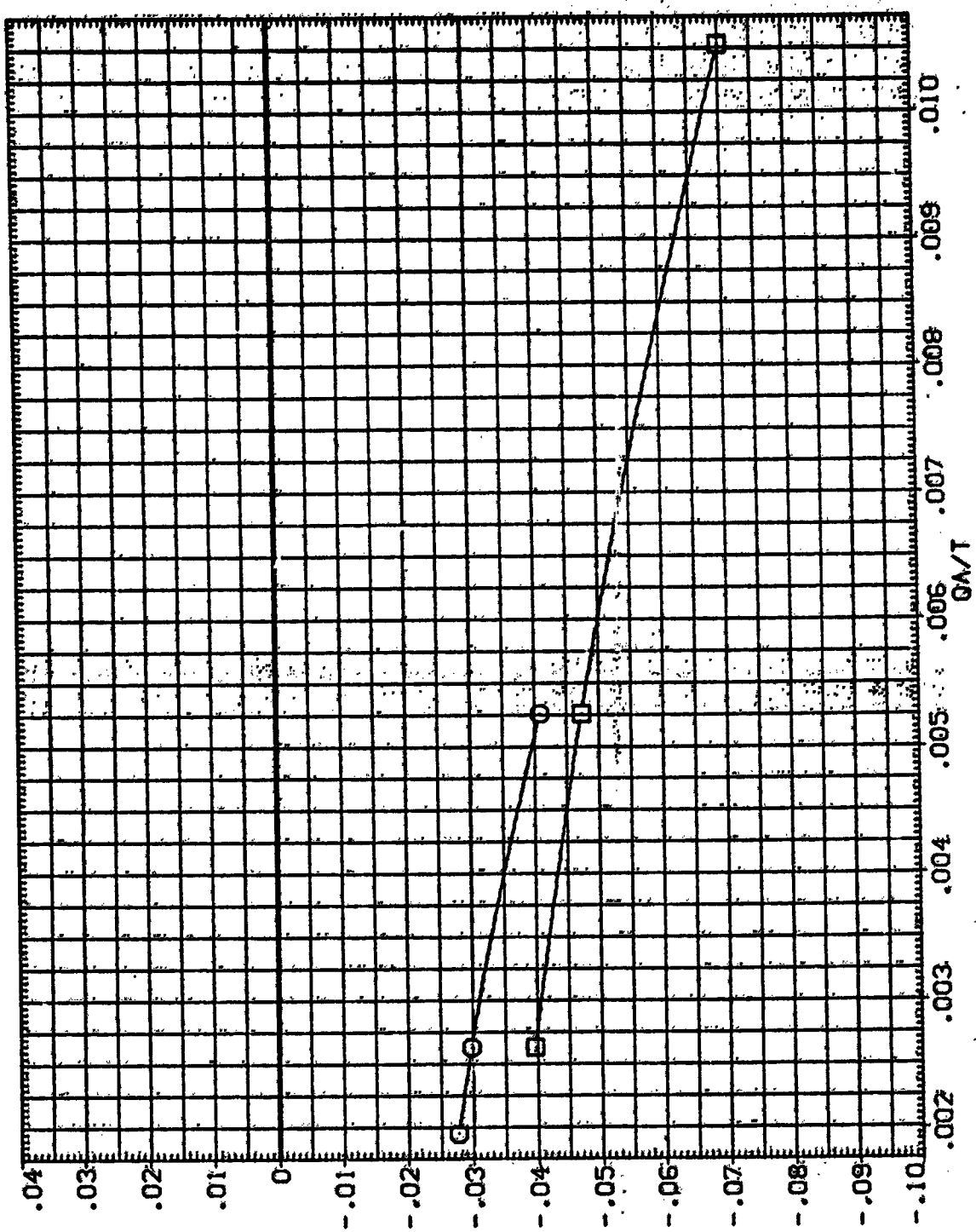


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85
 (L) ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJAD04)	01N51 LARC CFMT 118 (MA-22)	.008	4.000	.000	.000	SREF 2690.0000 50 FT.
(SJAD05)	01N65 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
						BREF 936.6800 INCHES
						VMRP 1076.7000 IN. 10
						ZMRP .0000 IN. 10
						SCALE 375.0000 IN. 20

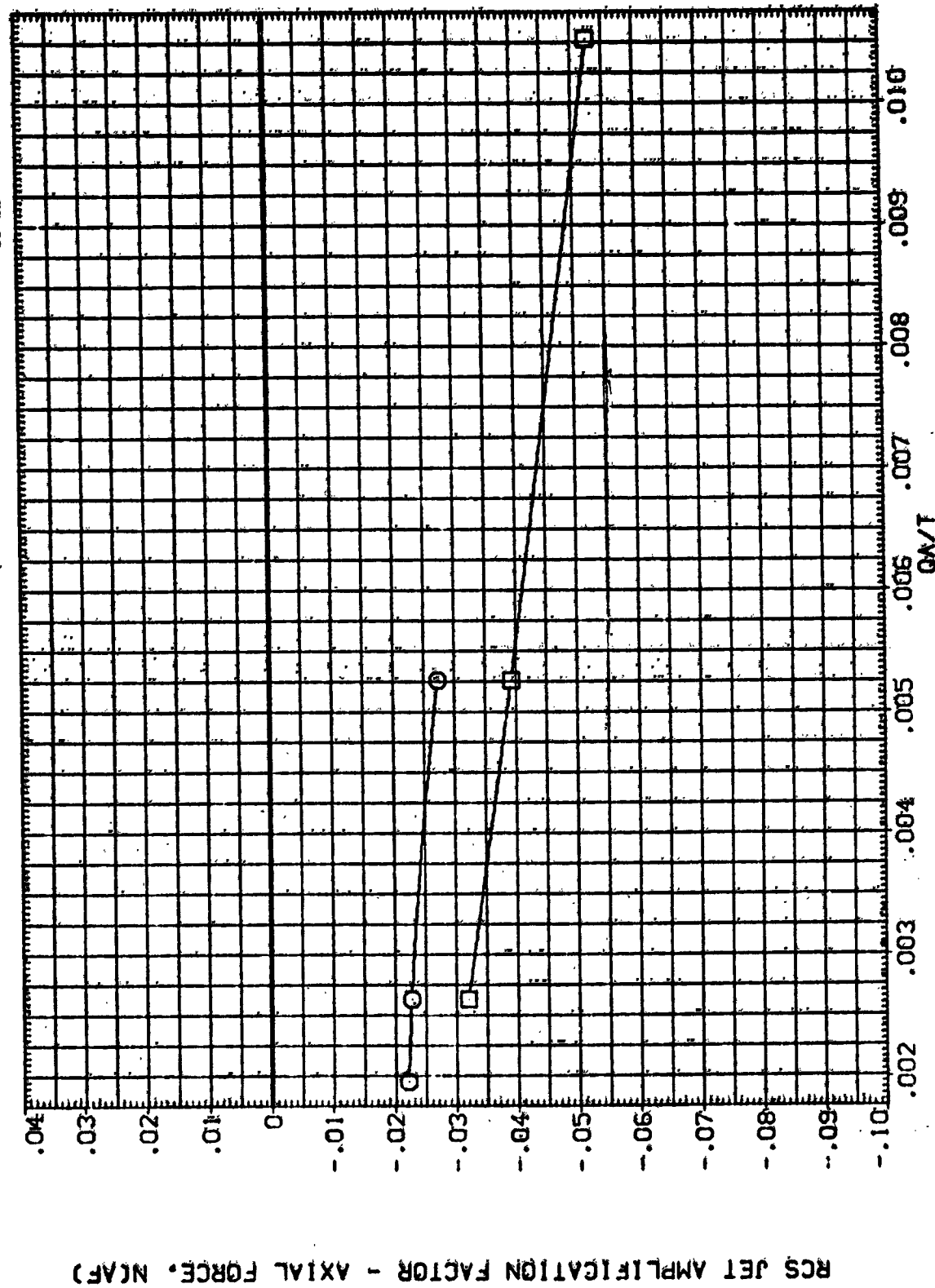


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(M)ALPHA = 25.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA004) 8 01N51 LARC CFHT 118 (MA-22)
 (SJA005) 8 01N85 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION
 .000 4.000 .000 SREF 2690.0000 SQ. FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 .000 .000 .000 BREF 936.8000 INCHES
 .000 .000 .000 XREF 1076.7000 IN. X0
 .000 .000 .000 YREF 375.0000 IN. Y0
 .000 .000 .000 ZREF 375.0000 IN. Z0
 SCALE .0100

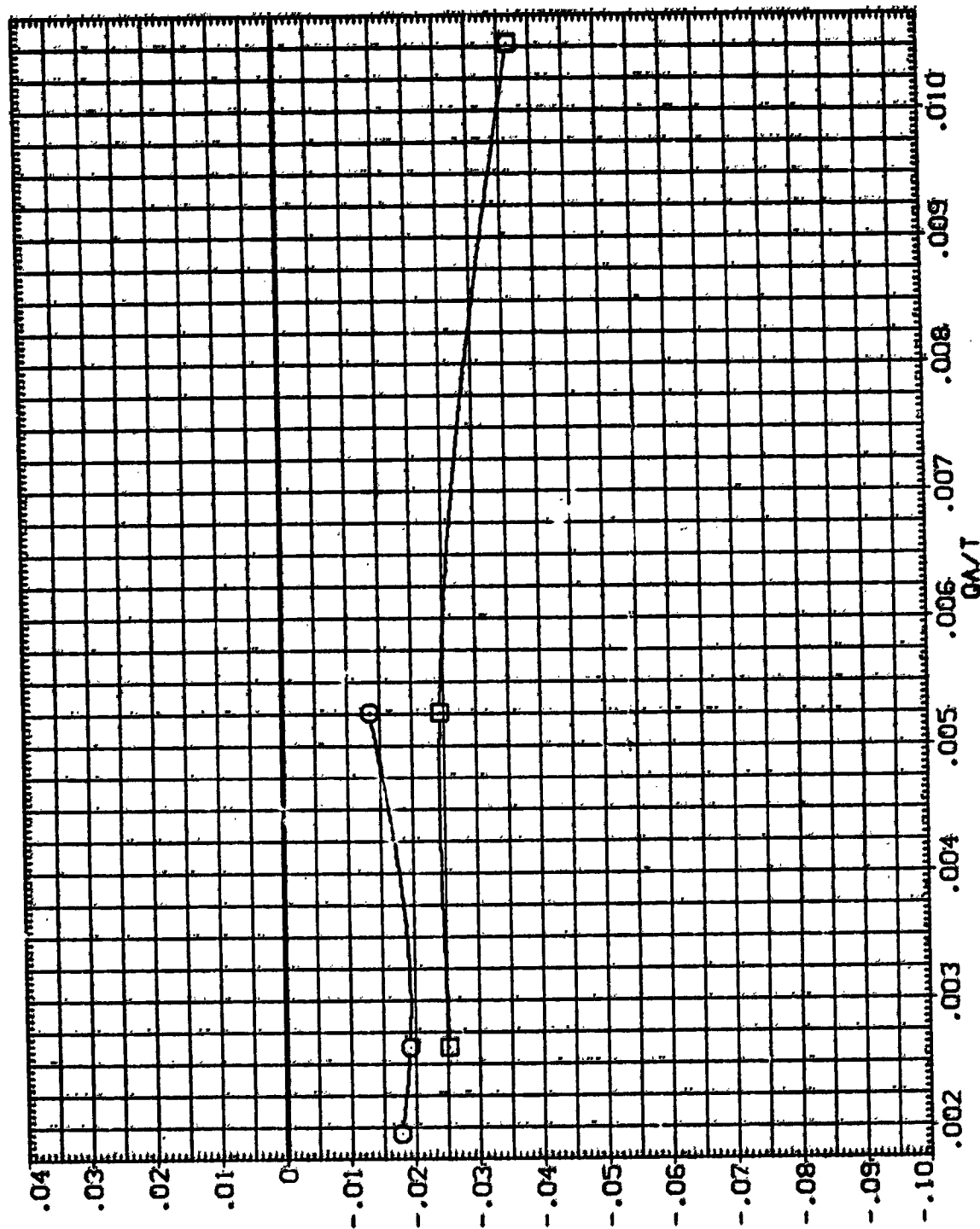


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(N)ALPHA = 30.00

DATA SET SYMBOL
(SJ/004)
(SJ/005)

CONFIGURATION DESCRIPTION
Q1N61 LARC CFHT 118 (MA-22)
Q1N65 LARC CFHT 118 (MA-22)

ELEVON
.000
.000

NO. JET
4.000
2.000

BDFLAP
.000
.000

BETA
.000
.000

REFERENCE INFORMATION
SREF 2630.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XREF 1076.7000 IN. X0
YREF .0000 IN. Y0
ZREF 375.0000 IN. Z0
SCALE .0100

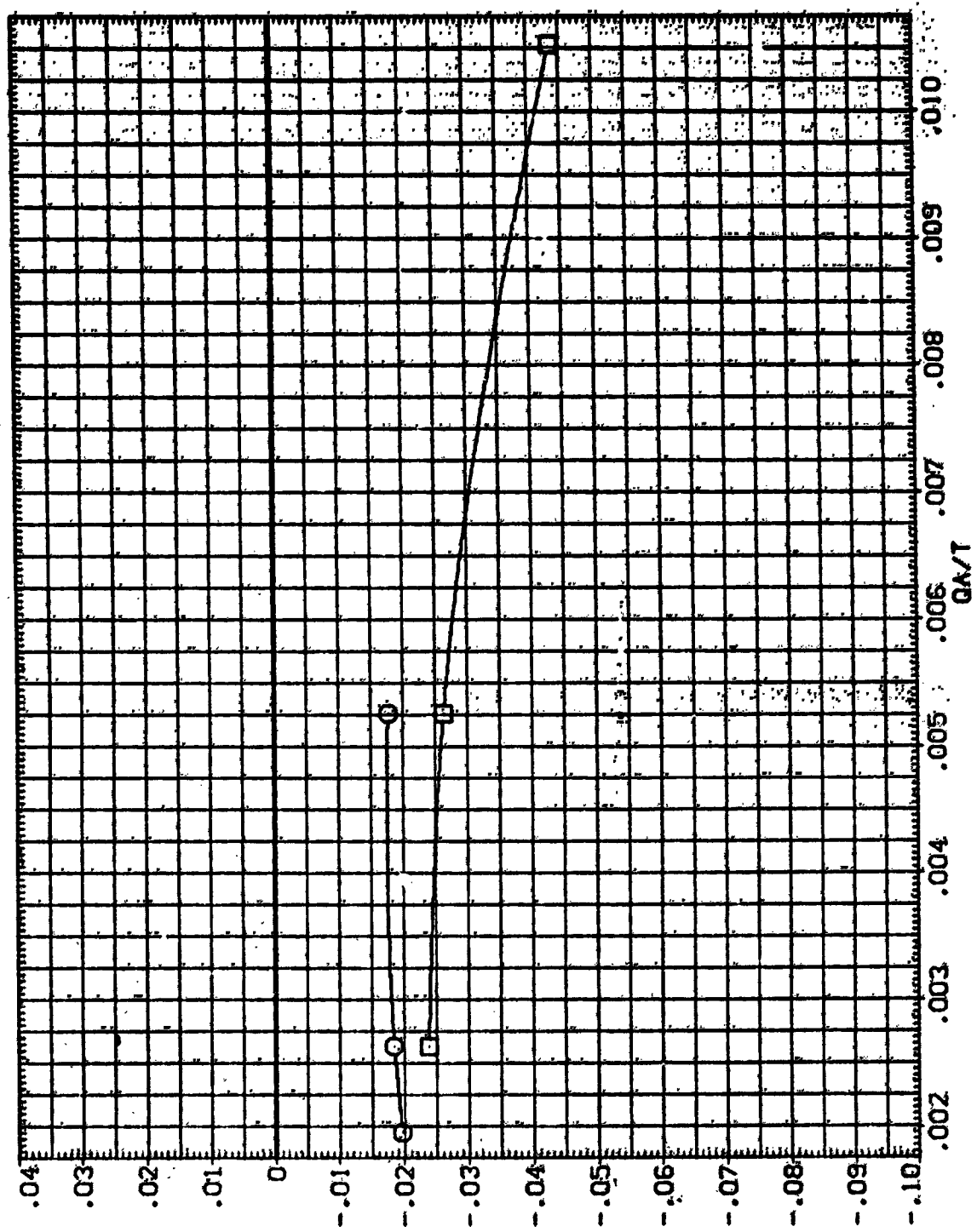


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS. N51-N85

DATA SET SYMBOL: (SJA004) □ (SJA005) □

CONFIGURATION DESCRIPTION: LARC CFHT 118 (RM-22) 61N85 LARC CFHT 118 (RM-22) 61N85

ELEVON: .000 NO. JET: 4.000 BOFLAP: .000 IN. TA: .000

REFERENCE INFORMATION: SREF: 2690.0000 50. FT. LREF: 474.8800 INCHES BREF: 936.6800 INCHES XTRP: 1076.7000 IN. YD YTRP: 375.0000 IN. ZD SCALE: .0100

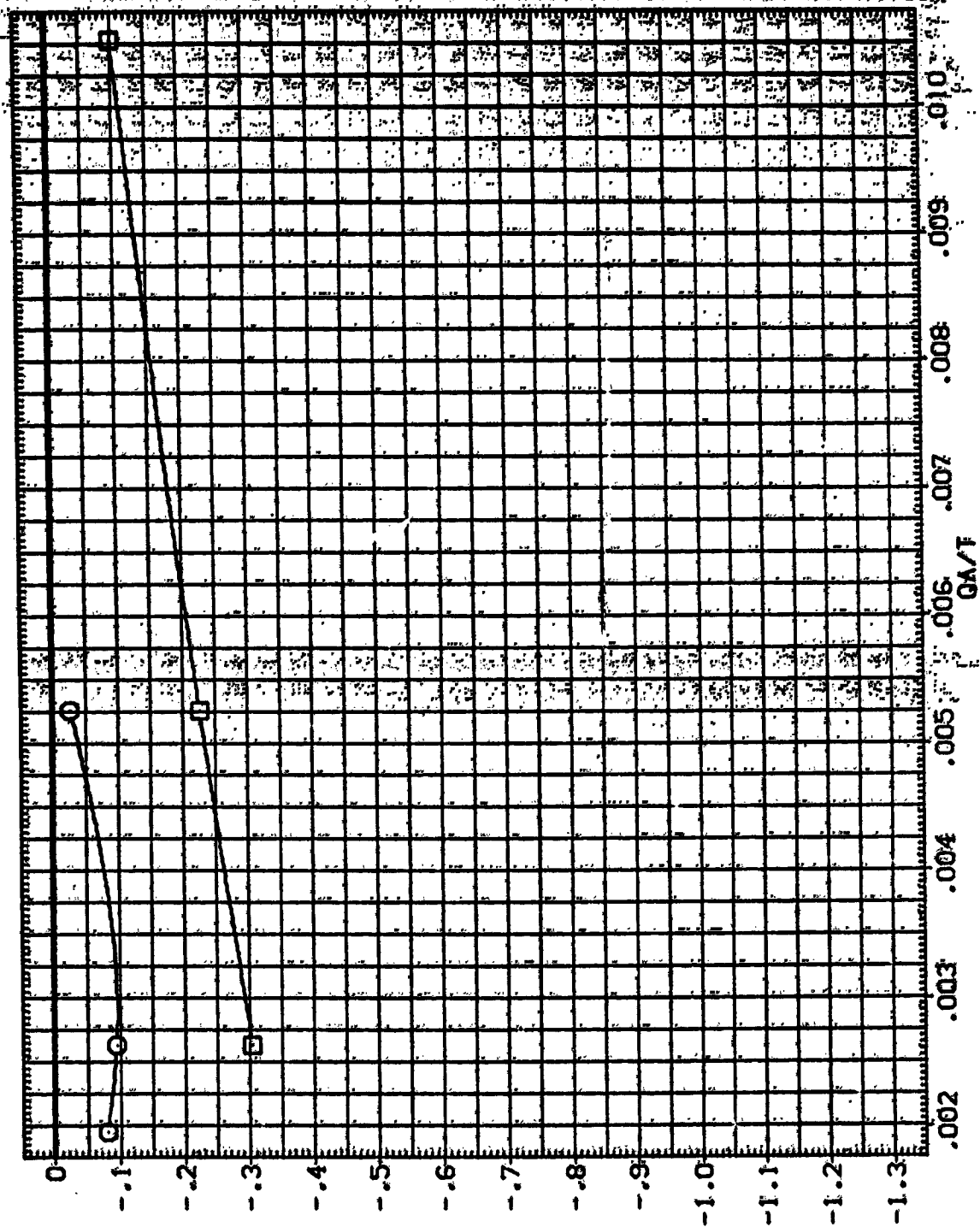
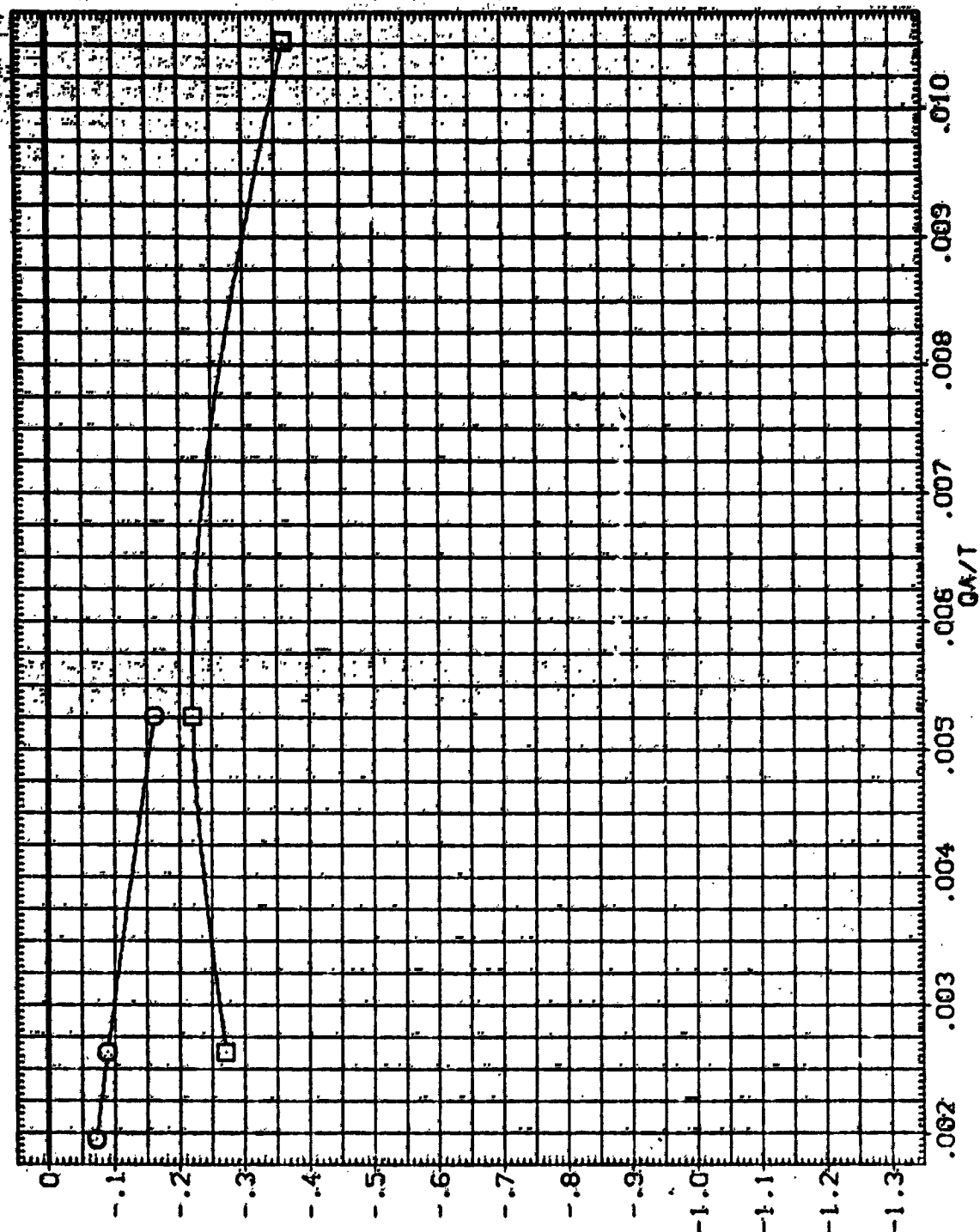


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N85

(A) ALPHA = -8.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BOFLAP		BETA		REFERENCE INFORMATION	
(SJA004)	B	QINS)	LARC CFMT 118 (NA-223)	.000	.000	4.000	.000	.000	.000	SREF	2690.0000	W50.FT	
(SJA003)		QINGS.	LARC CFMT 118 (NA-223)	.000	.000	2.000	.000	.000	.000	LREF	474.8000	INCHES	
										BREF	936.6800	INCHES	
										YREF	1076.7000	IN. 20	
										YREF	375.0000	IN. 20	
										SCALE	.0100		



RCS JET AMPLIFICATION FACTOR - ROLL, NCRM

FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

DATA SET SYMBOL ☐ CONFIGURATION DESCRIPTION
 (SJA004) 01N85 LARC CFMT 118 (MA-221)
 (SJA805) 01N85 LARC CFMT 118 (MA-221)

ELEVON .000 .000
 NO. JET 4.000 2.000
 BDFLAP .000 .000
 BETA .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. X
 YREF 0.0000 IN. Y
 ZREF 373.0000 IN. Z
 SCALE .0100

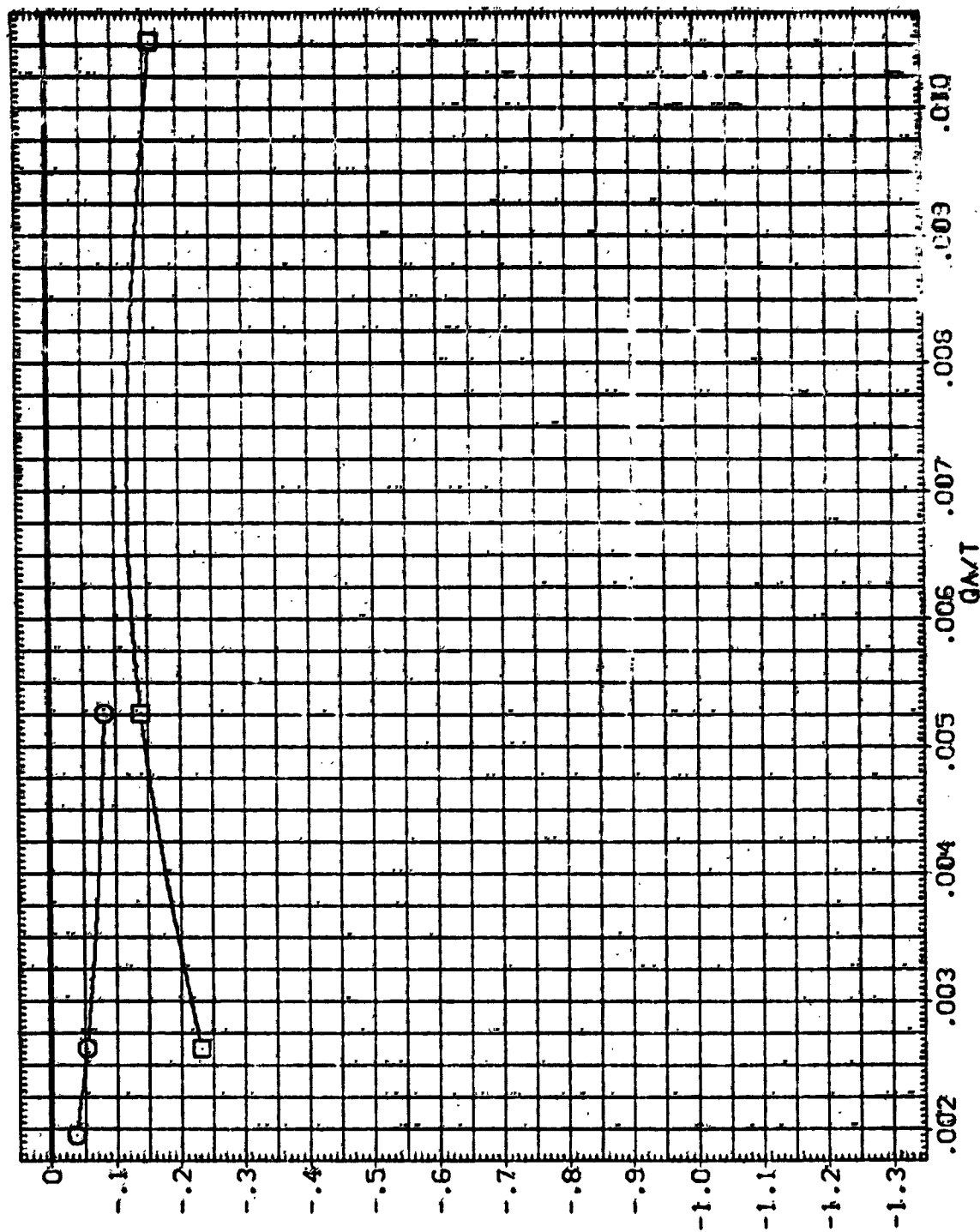


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85.

(C) ALPHA = -4.00

DATA SET SYMBOL: B
 (SJA004)
 (SJA005)

CONFIGURATION DESCRIPTION:
 LARC CFHT 118 (MA-22)
 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDELAP BETA
 .060 4.000 .000
 .060 2.000 .000

REFERENCE INFORMATION:
 REF. 2689.0000 INCHES
 LREF. 4.4.8000 INCHES
 RREF. 938.6800 INCHES
 XREF. 1076.7000 IN. X0
 YREF. .0000 IN. Y0
 ZREF. 375.3000 IN. Z0
 SCALE .0100

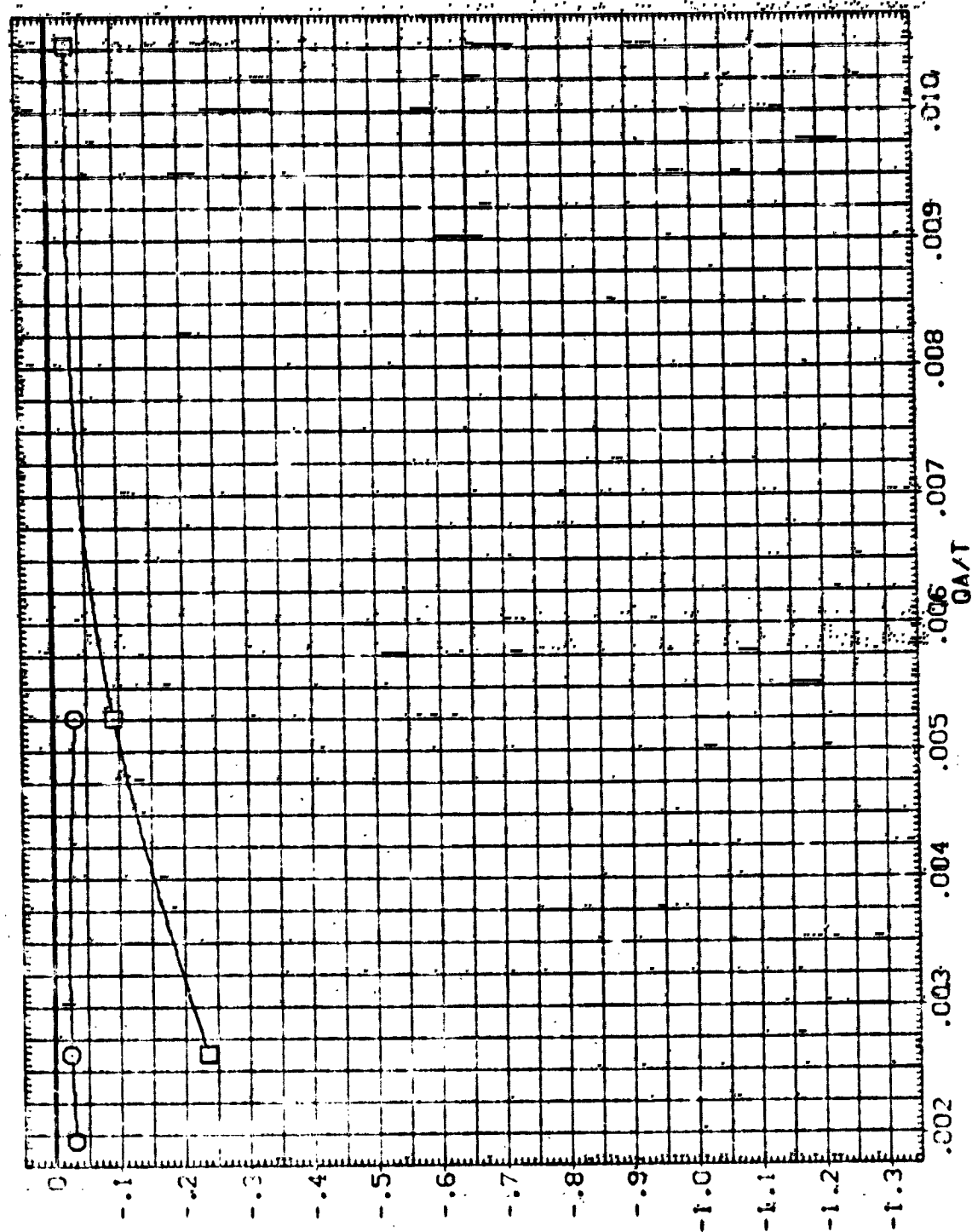


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS. N51.N85

(TOTAL PHA = -2.00)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(SJA004) *	LARC GFHT 118 (MA-22)
(SJA005) *	LARC GFHT 118 (MA-22)

STAGE	REFERENCE INFORMATION
STAGE 1	100,000
STAGE 2	474,800
STAGE 3	936,600
STAGE 4	1,076,700
STAGE 5	1,000,000
STAGE 6	375,000
STAGE 7	1,000,000

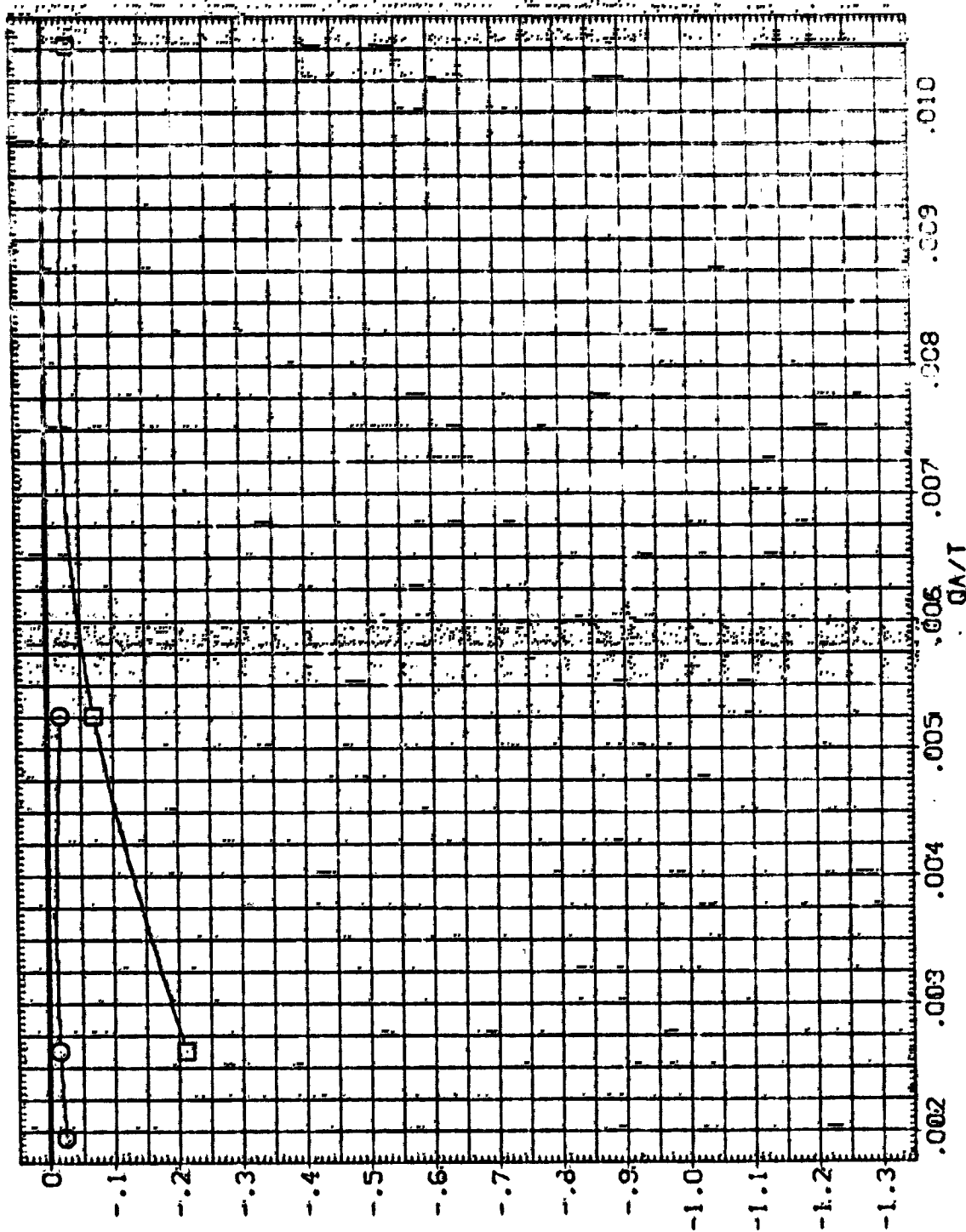


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, NO.1,N65

CEJALPHA = .00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BOFLAP		SEYA		REFERENCE INFORMATION	
(SJA004)	B	GIN51	LARC CFHT 118 (MA-22)	.000	4.000	.000	4.000	.000	.000	SRGF	2690.0000	50. FT.	
(SJA005)	B	GIN85	LARC CFHT 118 (MA-22)	.060	2.000	.000	2.000	.000	.000	LREF	474.8000	INCHES	
										BREF	936.6800	INCHES	
										XMRP	1076.7000	IN. X0	
										YMRP	.0000	IN. Y0	
										ZMRP	375.0000	IN. Z0	
										SCALE	.0100		

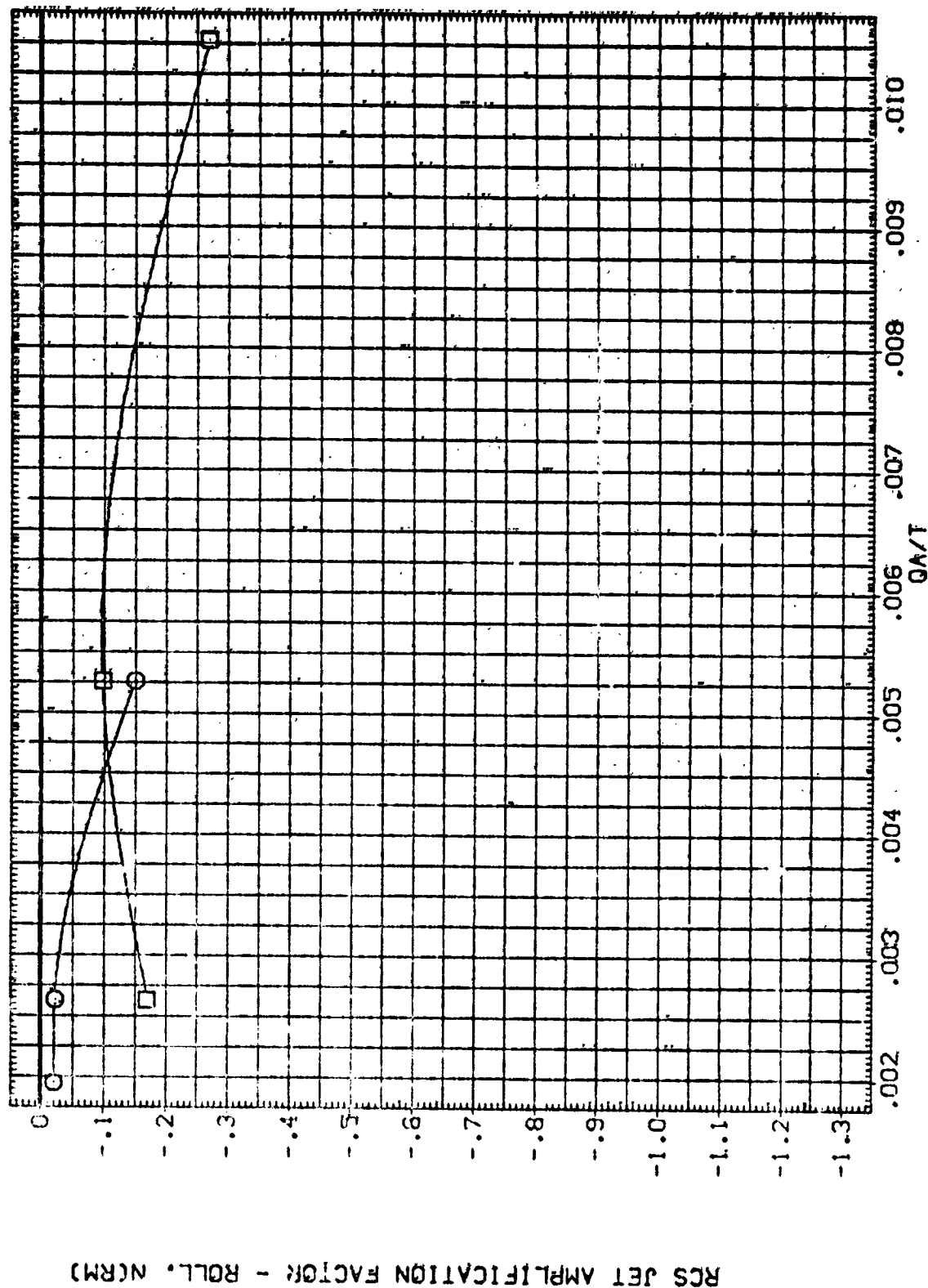


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(F)ALPHA = 2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA004) 01N51 LARC CFHT 118 (MA-22)
 (SJA005) 01N85 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA
 .000 4.000 .000
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2650.0000 SQ. FT.
 LREF 474.9800 INCHES
 BREF 376.6800 INCHES
 XMRP 1028.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.6800 IN. Z0
 SCALE .0100

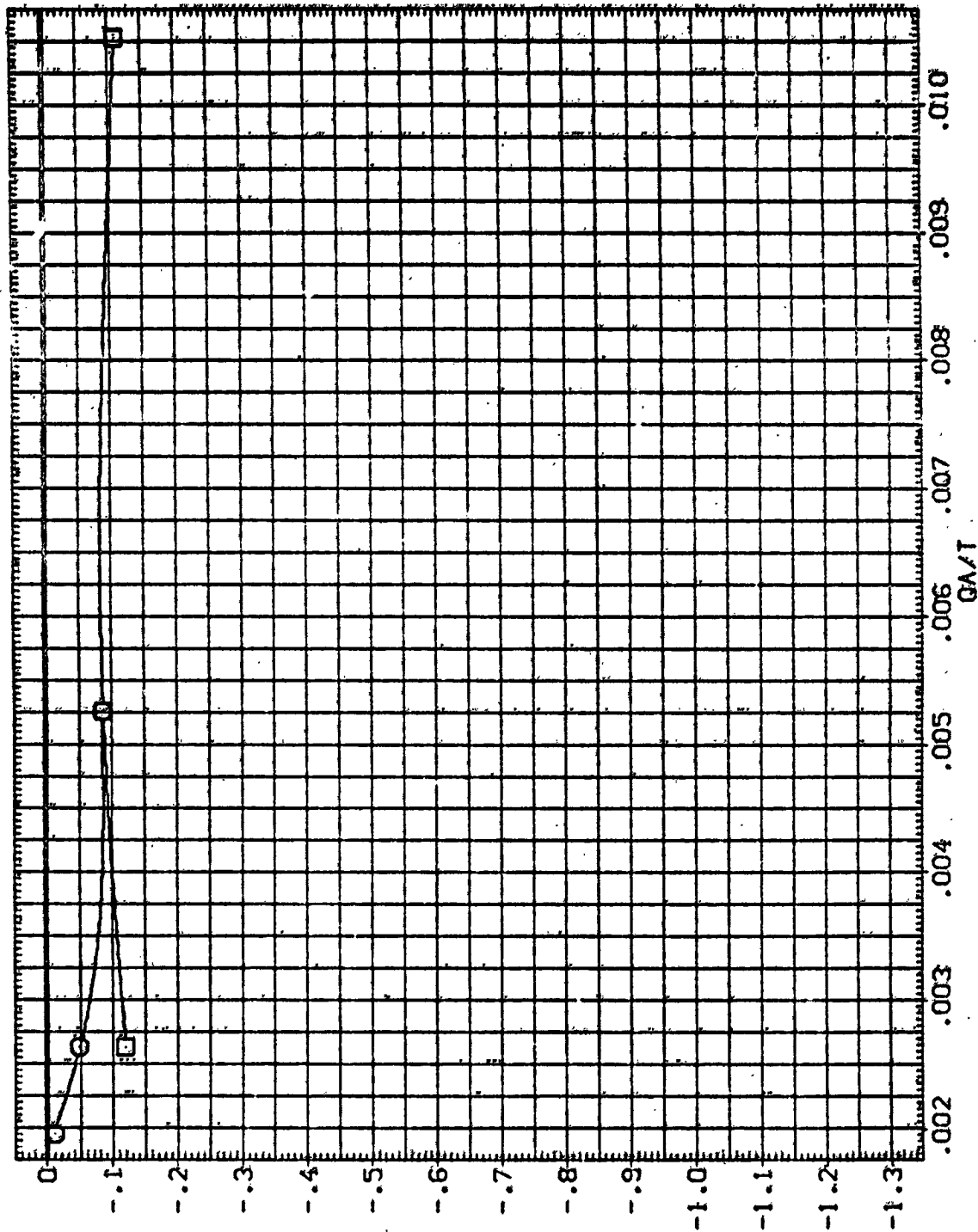


FIGURE 25. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(G)ALPHA = 4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(S1A04) 9151 LARC CFHT 118 (MA-22)

(S1A05) 9155 LARC CFHT 118 (MA-22)

ELEVON .000
 .000

NO. JET 4.000
 2.000

BOTLAP .000
 .000

BETA .000
 .000

REFERENCE INFORMATION

SREF 2690.0000 SQ. FT.

LREF 474.8000 INCHES

BREF 936.6800 INCHES

XMRP 1076.7000 IN. X0

YMRP .0000 IN. Y0

ZMRP 375.0000 IN. Z0

SCALE .0100

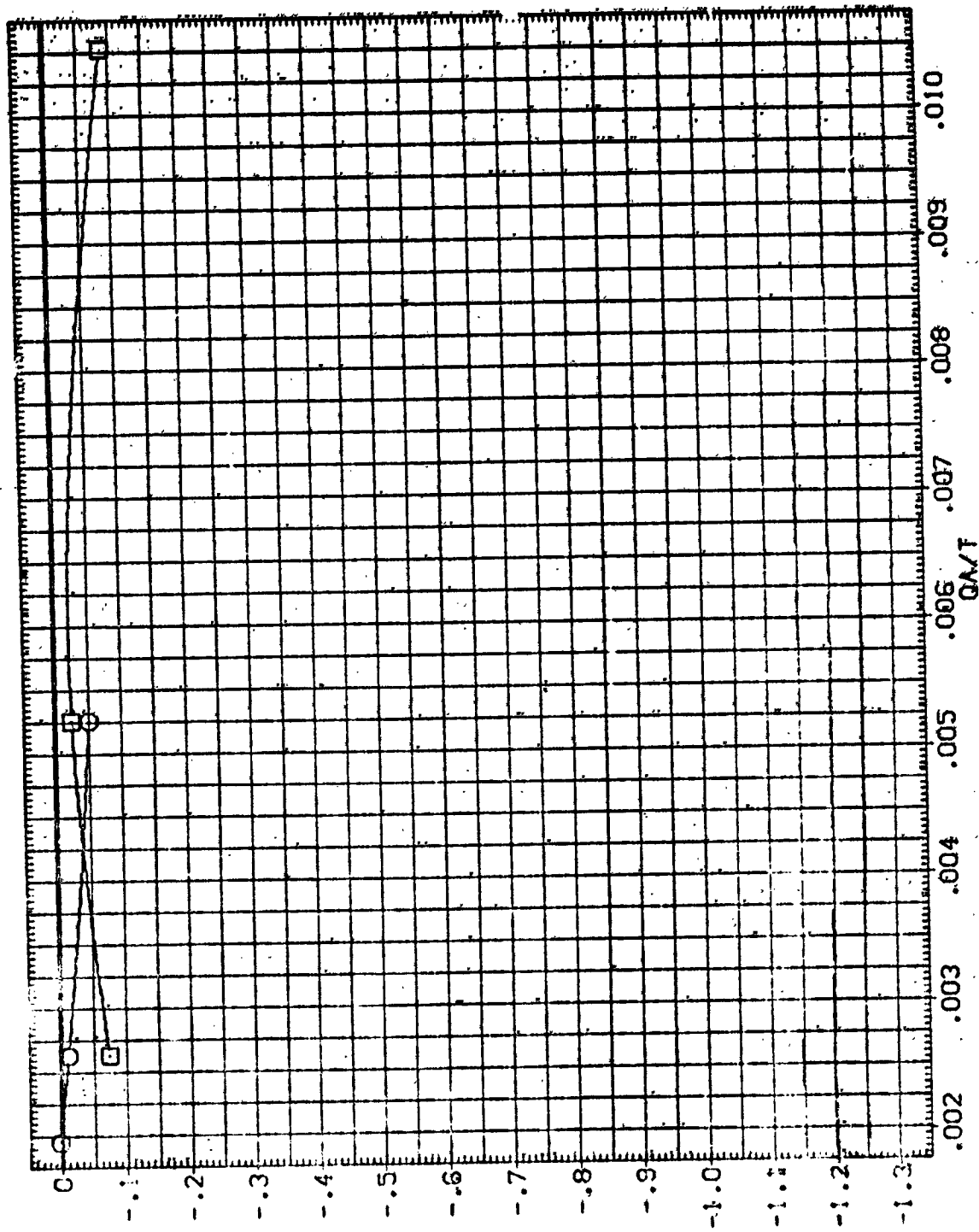


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(H)ALPHA = 6.00

DATA SET 5122
(S27000) ☐ SINGL LARG SPHT 118 (MA-22)
(S27005) ☐ SINGL LARG SPHT 118 (MA-22)

ELEVON NO. 181 BCFEAP BETA
.000 .000
.000 .000
.000 .000

REFERENCE INFORMATION
SPEC 2696.0000 50. FT
LREF 474.8000 INCHES
BREF 936.6000 INCHES
XMRP 1026.7000 IN. 20
YMRP .0000 IN. 20
ZMRP 375.0000 IN. 20
SCALE .0100

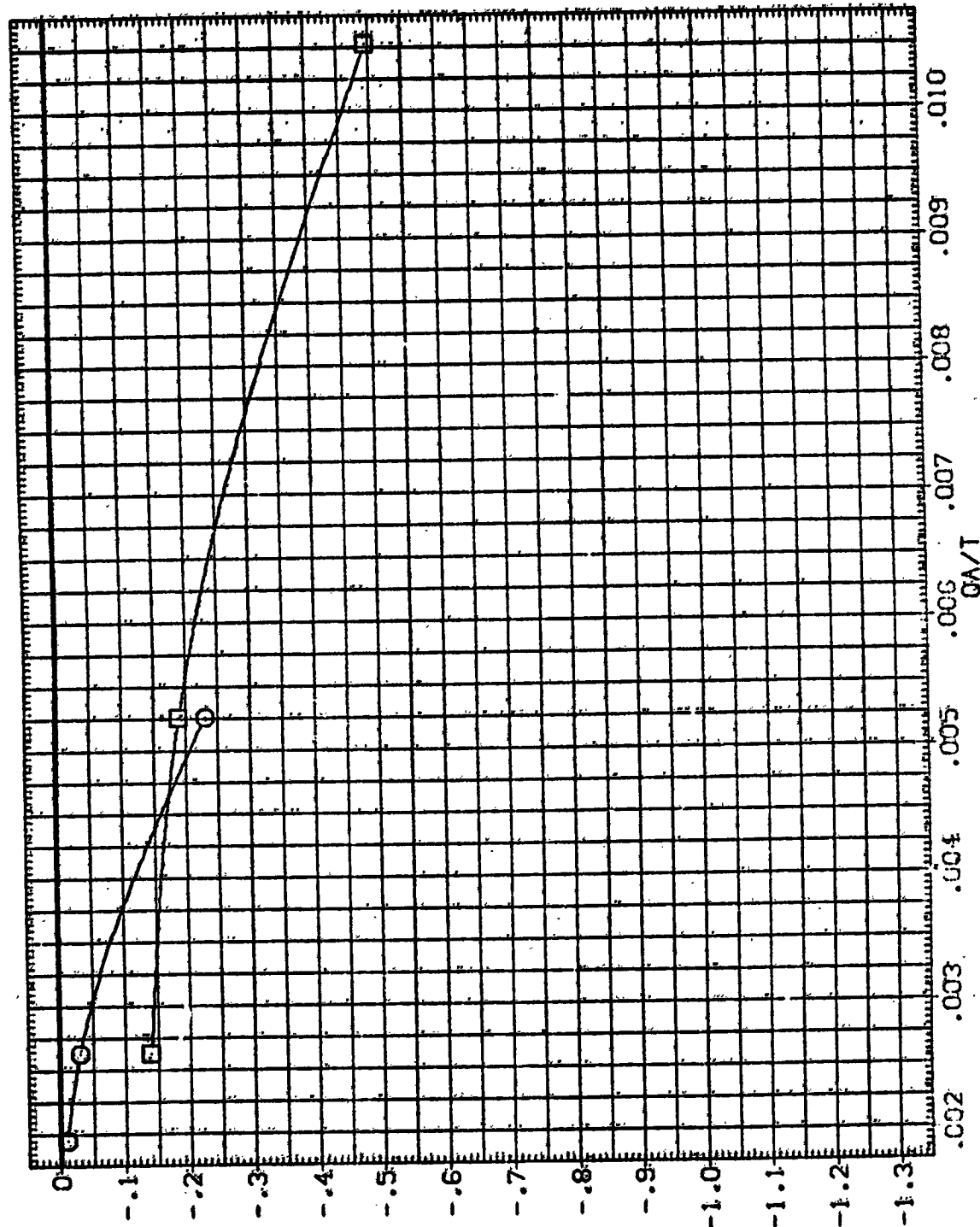
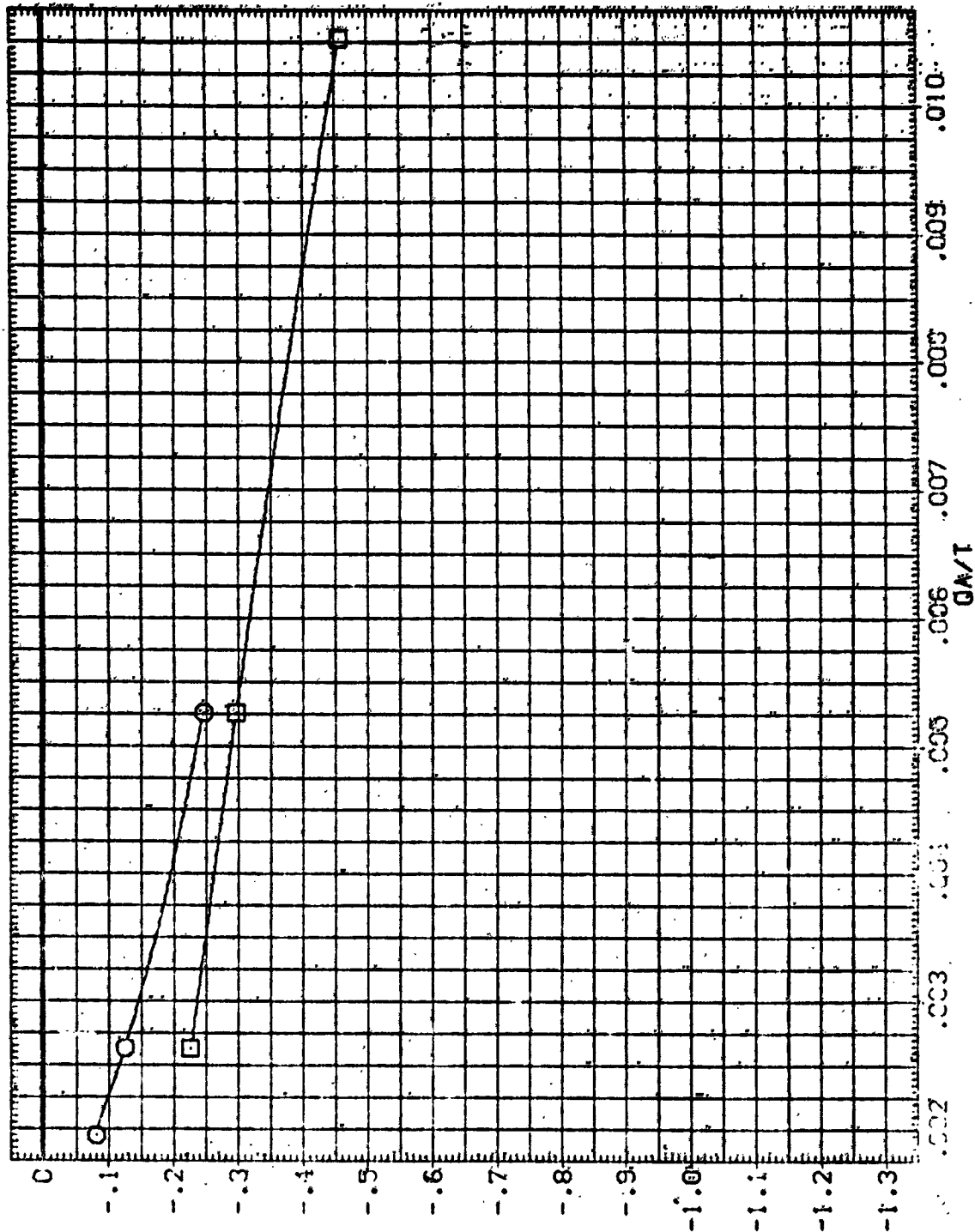


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(I) ALPHA = 8.00


DATA SET SYMBOL	CONFIDURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(S)AOC4)	LARC CFMT 118 (MA-22)	.000	4.000	.000	.000	SREF 2690.0000 SQ. FT.
(S)AOC5)	LARC CFMT 113 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
						BREF 936.6800 INCHES
						YMRP 1076.7000 IN. YG
						ZMRP 373.0000 IN. ZG
						SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, NCRM

FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N85

(J)ALPHA = 10.00

DATA SET SYMBOL (SJA004) (SJA005) 

CONFIGURATION DESCRIPTION
 QINS1 LARC CFHT 118 (NA-22)
 QINS2 LARC CFHT 118 (NA-22)

ELEVON NO. JET NO. BOFLAP BETA SREF LREF BREF XMRP YMRP ZMRP SCALE

REFERENCE INFORMATION
 2690.0000 SO. FT.
 474.8000 INCHES
 936.8800 IN. X0
 1076.7000 IN. Y0
 375.8000 IN. Z0
 .0100

RCS JET AMPLIFICATION FACTOR - ROLL, N(RM)

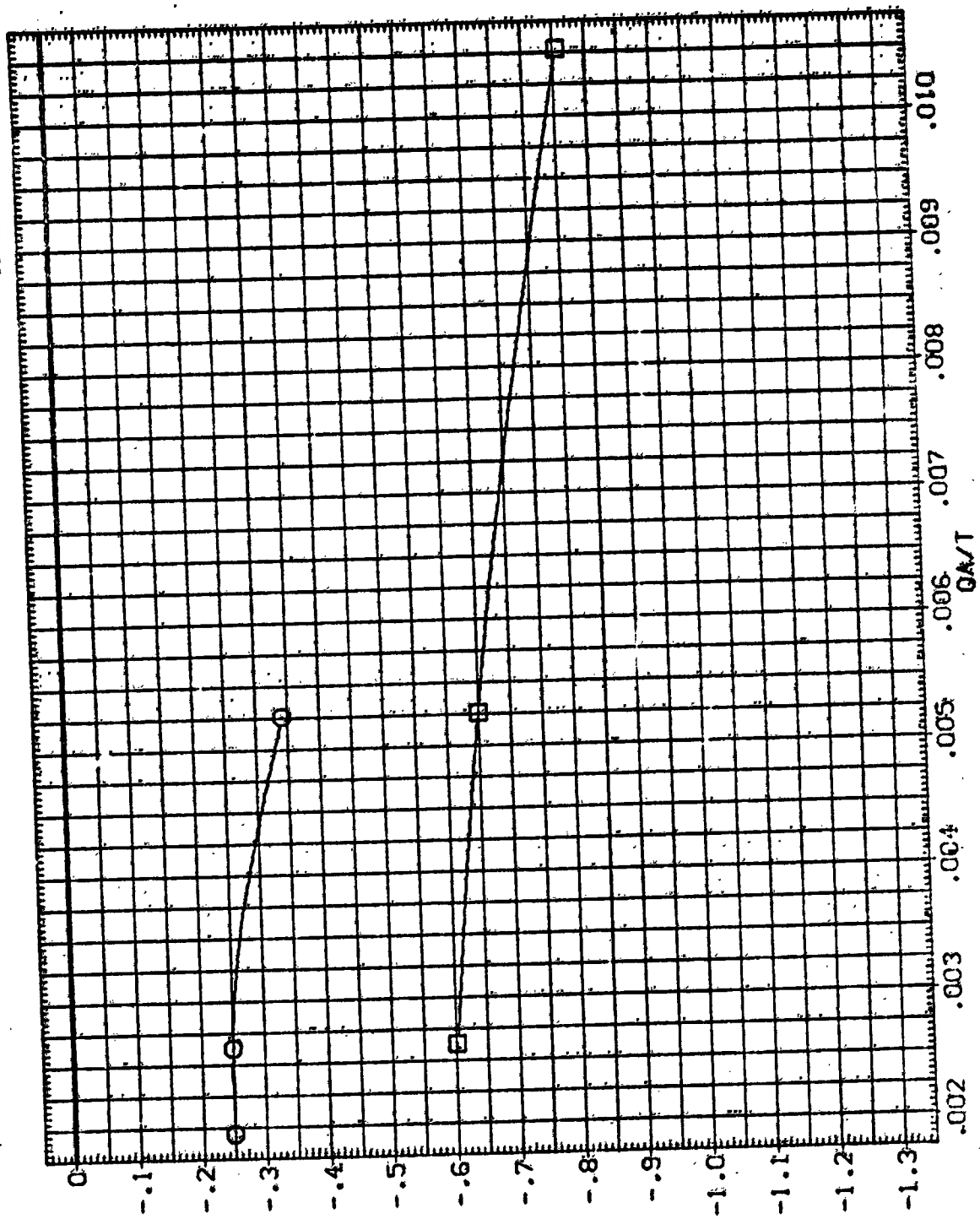


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N85

(K)ALPHA = 15.00

DATA SET SYMBOL: CONFIGURATION DESCRIPTION
 (S)AC04 } LARC CHT 118 (MA-22)
 (S)AC05 } LARC CHT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA REFERENCE INFORMATION
 .000 4.000 .000 SREF 2690.0000 SO.FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 BREF 936.5000 INCHES
 XMRP 1076.2000 IN. 10
 YMRP .0000 IN. 10
 ZMRP 375.0000 IN. 20
 SCALE .0100

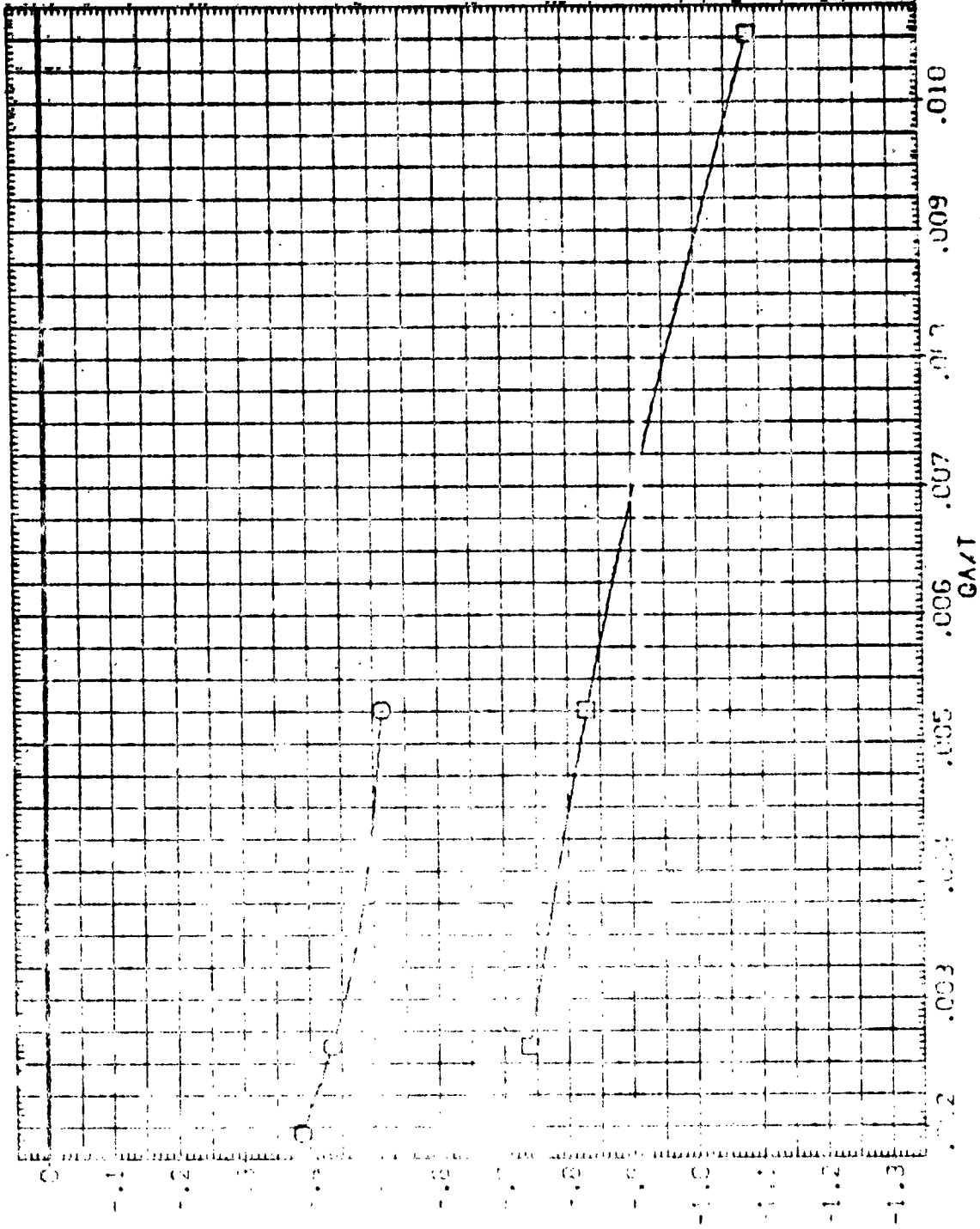



FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

CLALPHA = 20.00

DATA SET SYMBOL (SJA004) (SJA005)  CONFIGURATION DESCRIPTION LARC CFMT 118 (MA-22) LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
 .000 4.000 .000
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2650.0000 50.00
 LREF 474.5000 INCHES
 BREF 936.6600 INCHES
 XREF 1876.7000 IN. X3
 YREF .0000 IN. Y3
 ZREF 375.0000 IN. Z3
 SCALE .0100

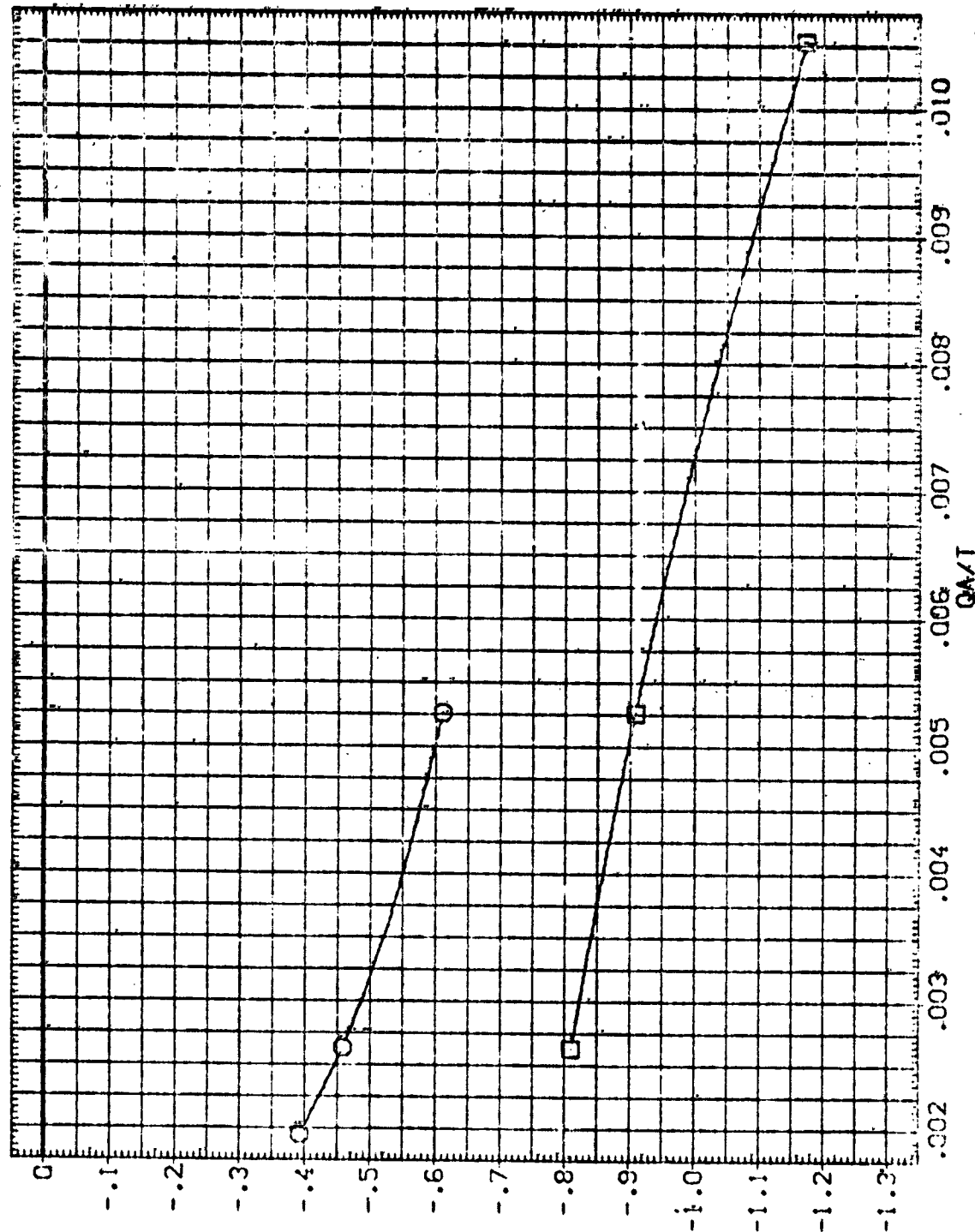


FIGURE 26. EFFECT OF MULTIPLE JET RES FIRINGS, N51,N85

CNDAALPHA = 25.00

ELEVON	NO-JET	BDFLAP	BETA	SREF	2590.0000	SD.#1
.000	4.000	.000	.000	LREF	474.8000	INCHES
.000	2.000	.000	.000	BREF	936.6800	INCHES
				XMRP	1076.7000	IN. YD
				YMRP	.0000	IN. YD
				ZMRP	375.0000	IN. ZD
				SCALE	.0100	

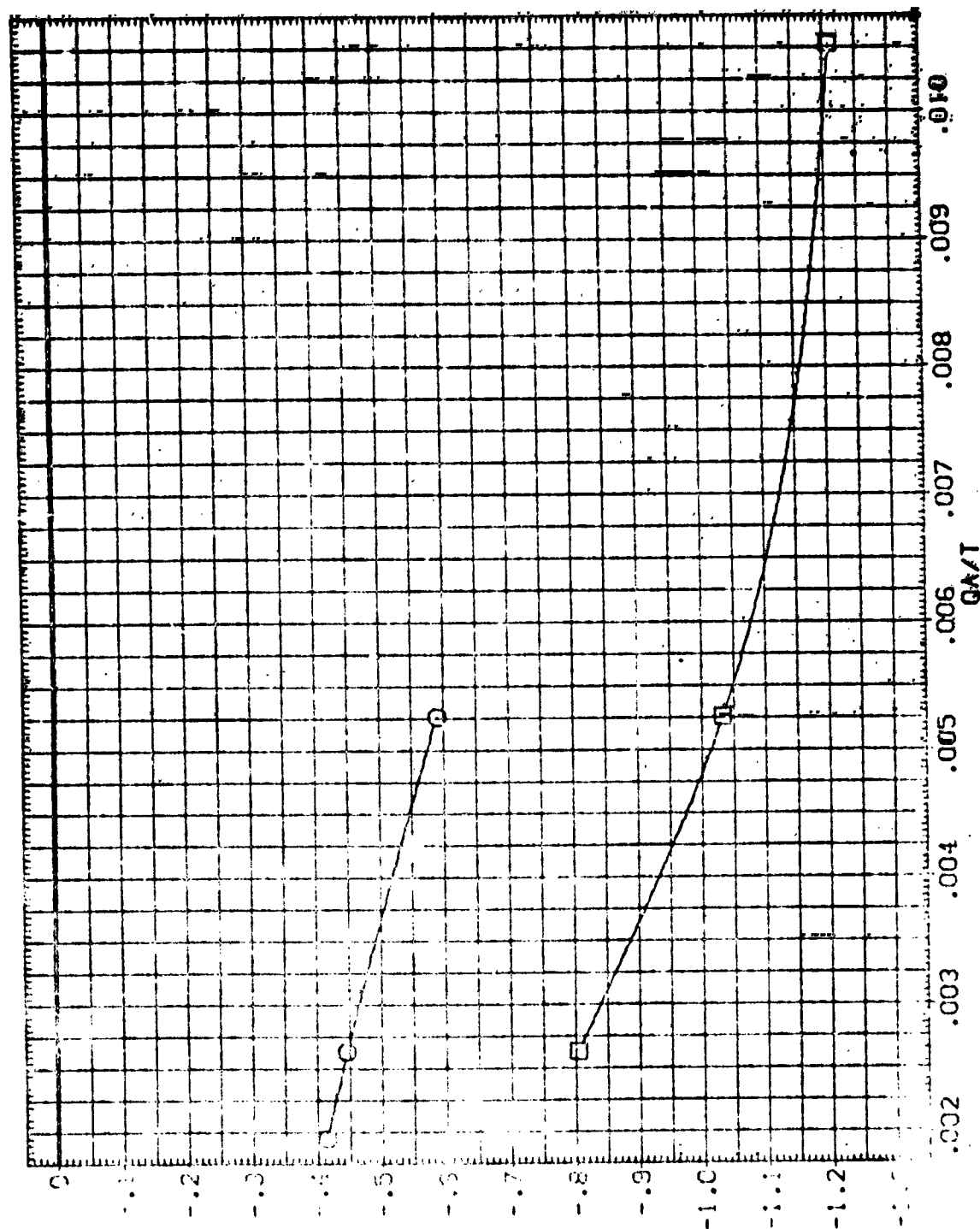



FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-135

DATA SET SYMBOL (SJA004) (SJA005) 

ELEVON NO JET 4.000 2.000
 .000 .000
 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 30.00
 LREF 474.8000 1.00
 REF 935.8800 1.00
 X-REF 1076.7000 1.00
 Y-REF 375.0000 1.00
 Z-REF 375.0000 1.00
 SCALE .0100

CONFIGURATION DESCRIPTION
 LARC CENF 118 (MA-22)
 LARC CENF 118 (MA-22)

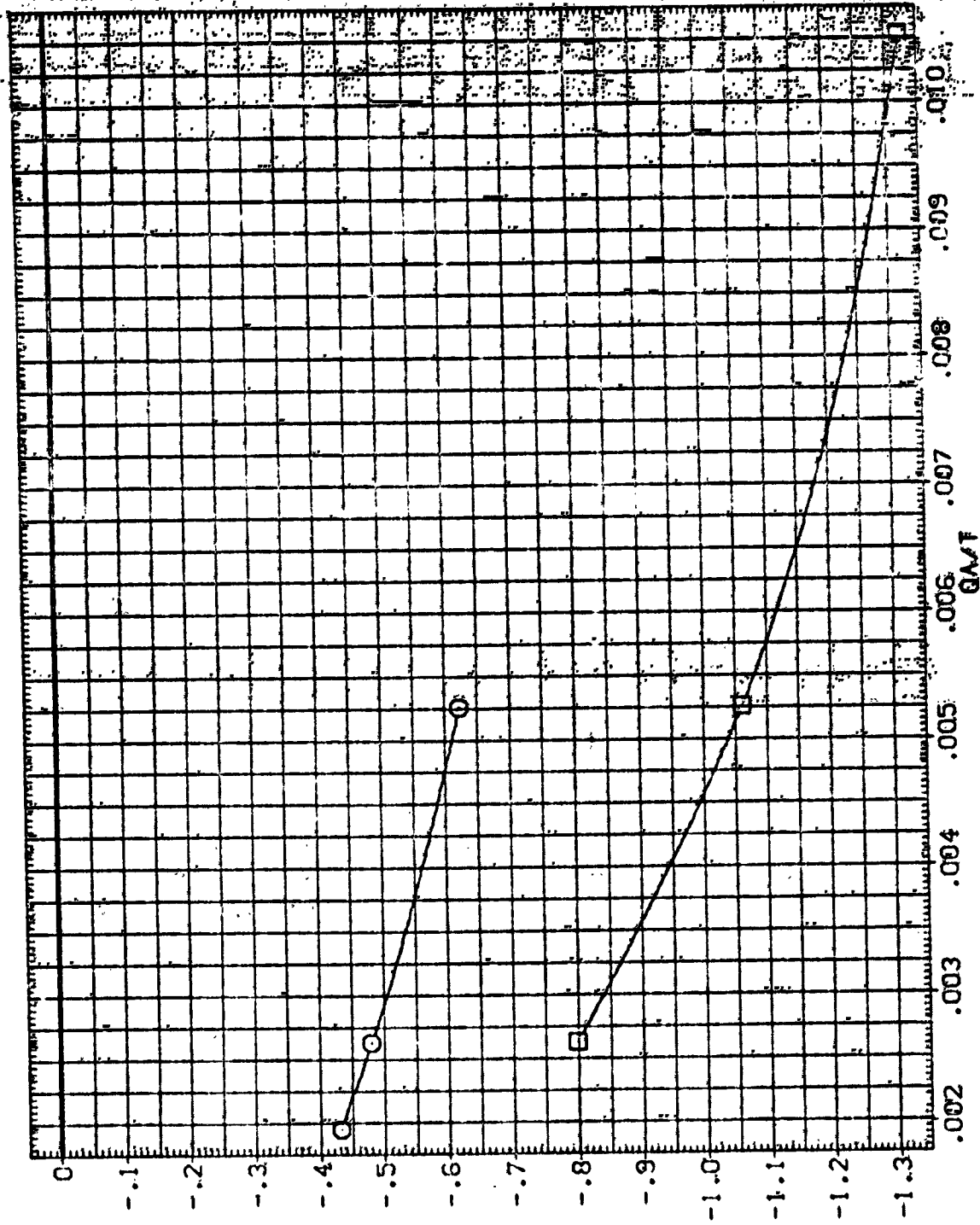


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

(σ)ALPHA = 35.00

DATA SET SYMBOL: (SJ0004) (SJ0005)
 CONFIGURATION DESCRIPTION: LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)

ELEVON: .000
 NO. JET: 4.000
 BOFLAP: .000
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2690.0000 SD. FT.
 LREF: 474.8000 INCHES
 BRREF: 936.6800 INCHES
 XMRP: 1075.7000 IN. TO
 YMRP: .0000 IN. TO
 ZMRP: 375.0000 IN. TO
 SCALE: .0100

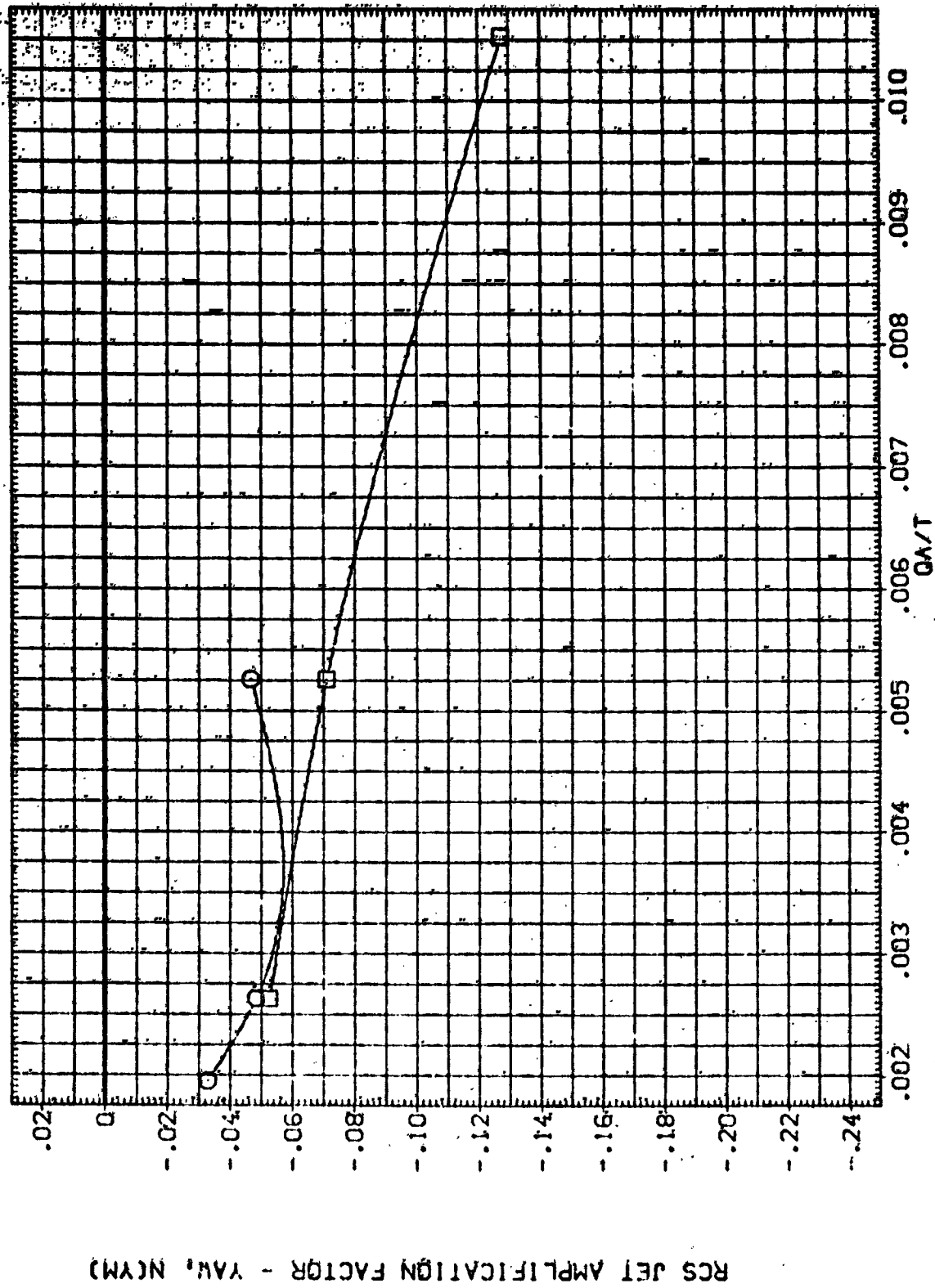


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

DATA SET SYMBOL: 8
 (SIA004) QINSI
 (SIA005) QIN85

CONFIGURATION DESCRIPTION:
 LARC CFHT 118 (NA-22)
 LARC CFHT 118 (NA-22)

ELEVON: .008
 NO. JET: 4.000
 BDFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2680.0000 SQ. FT.
 LREF: 474.8000 INCHES
 BREF: 936.8800 INCHES
 XREF: 1076.7000 IN. XG
 YREF: .0000 IN. YG
 ZREF: 375.0000 IN. ZG
 SCALE: .0160

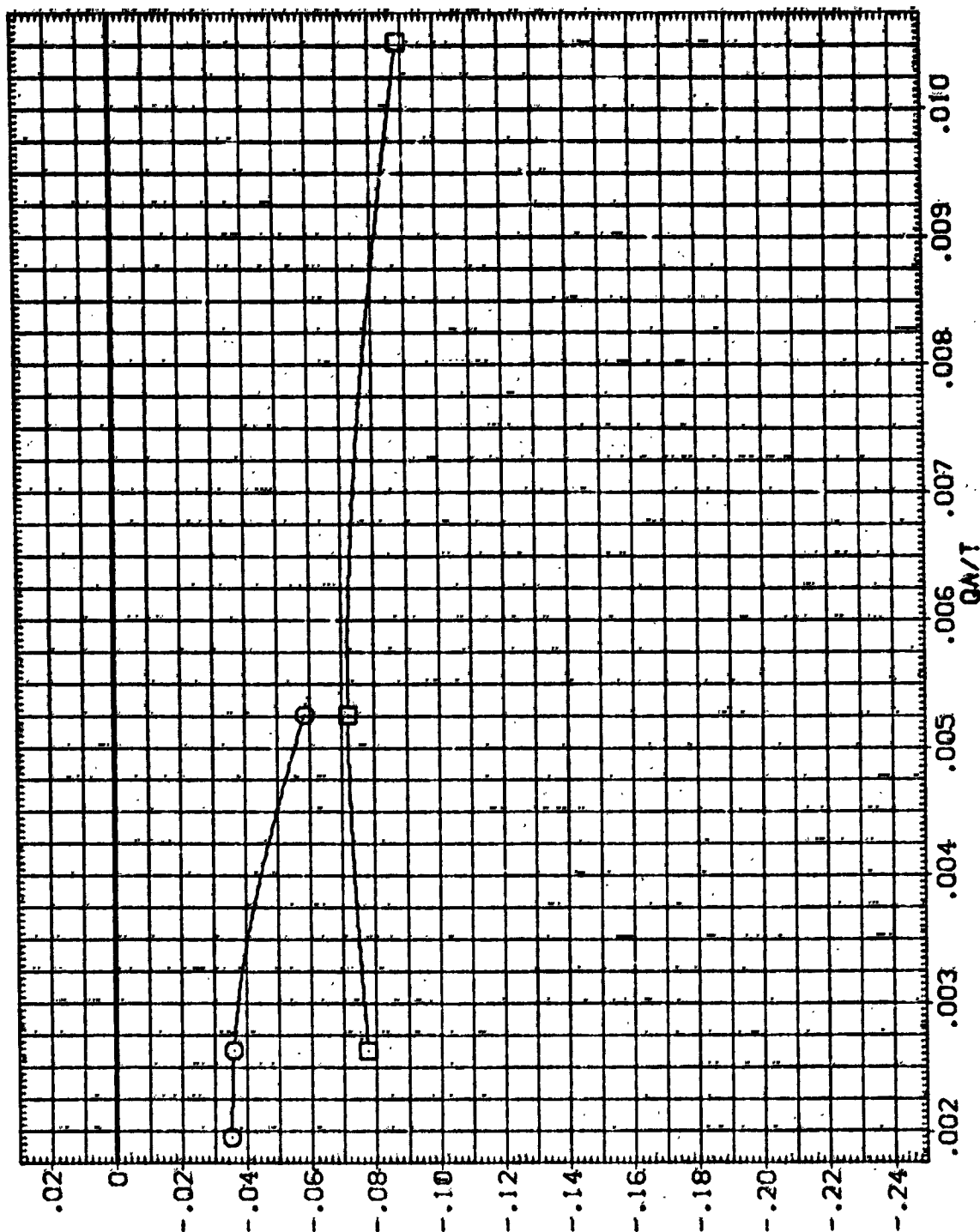


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N85

(B) ALPHA = -6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (S1A004) CINS1 LARC CENT 118 (MA-22)
 (S1A005) CINS5 LARC CENT 118 (MA-22)

ELEVON NO-JET BOFLAP BETA
 .000 4.000 .000
 .000 2.060 .000

REFERENCE INFORMATION
 SPEC 2690.0000 SQ. FT.
 LREF 474.6000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. XG
 YREF .0000 IN. YG
 ZREF 375.0000 IN. ZG
 SCALE .0100

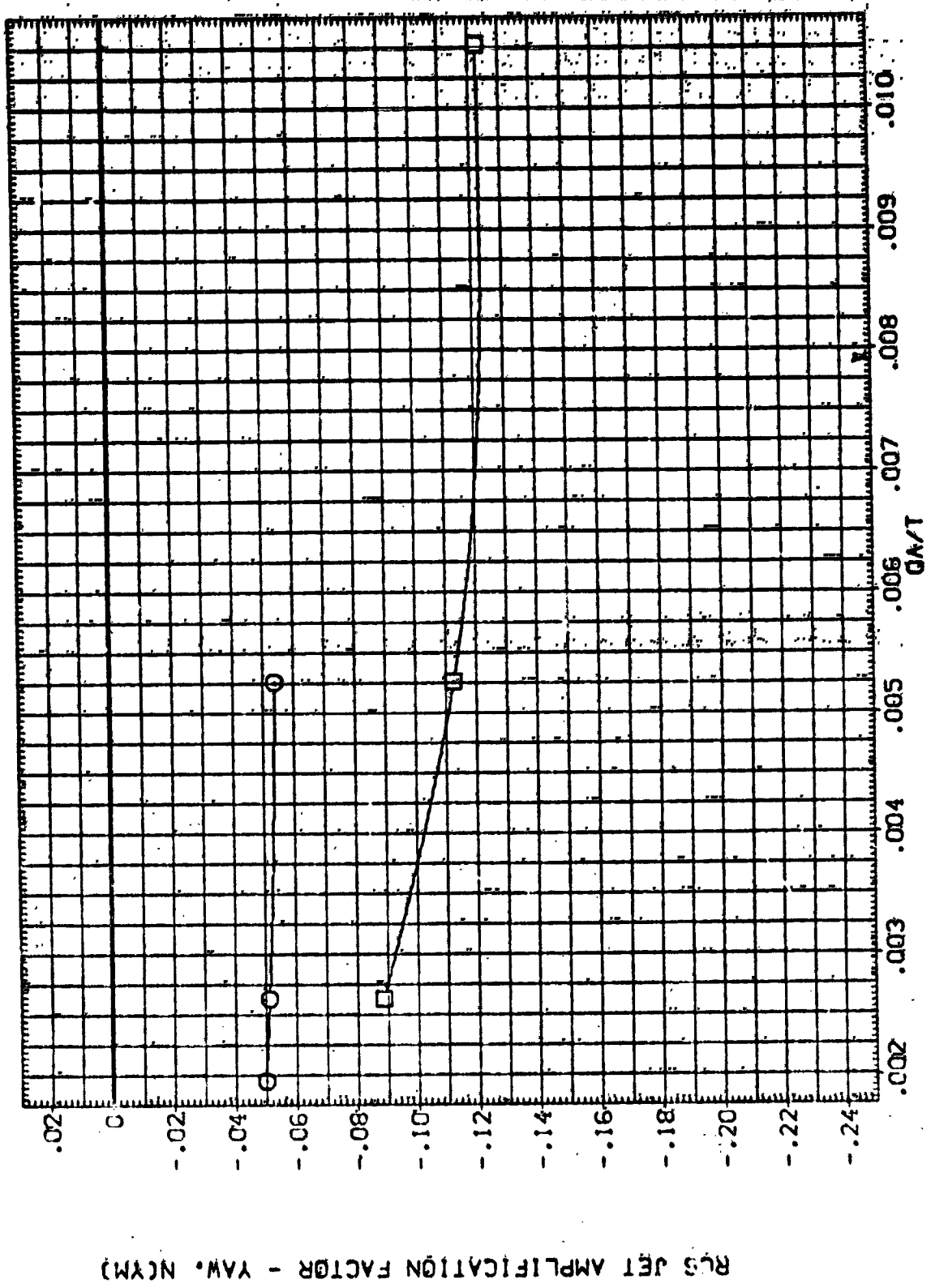


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS. N51.N85

DATA SET SYMBOL: (SJM004)
 (SJM005)

01153A
 01185

CONFIGURATION DESCRIPTION:
 LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)

ELEVATION: .000
 .000
 .000

NO. JET: 4.000
 2.000

BETA: .000
 .000

REFERENCE INFORMATION:
 SREF: 2590.0000
 LREF: 474.8000
 BREF: 935.6900
 XP-SP: 1076.7000
 W-SP: .0000
 Z-SP: 375.0000
 SCALE: .0000

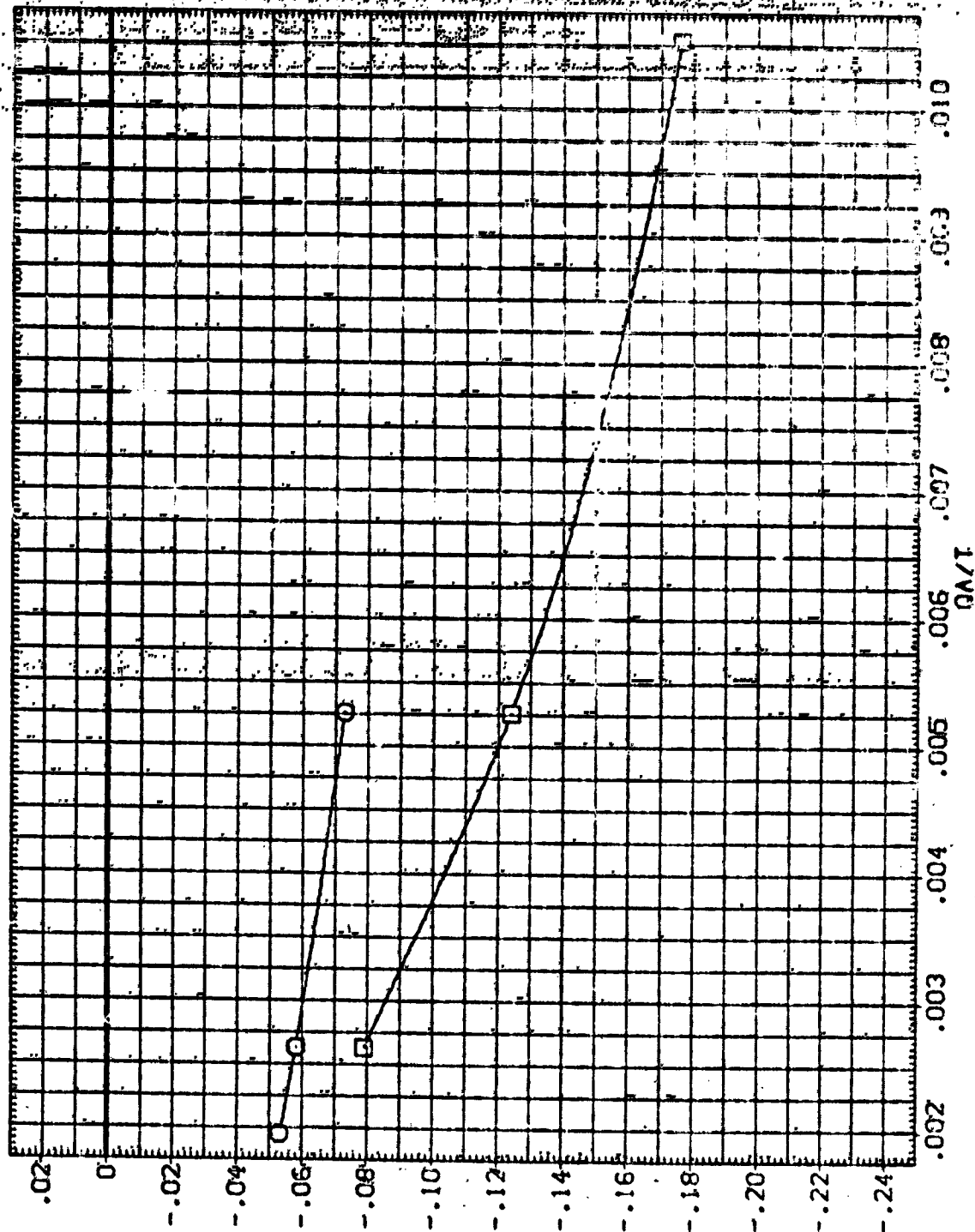


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85
 (CO)ALPHA = -2.00

DATA SET SYMBOL
(511074) 1
(511075) 1

CONFIGURATION DESCRIPTION
Q1N51 LARC CFHT 118 (NA-22)
Q1N85 LARC CFHT 118 (NA-22)

ELEVATION: .000
NO. JET: 4.000
BOFLAP: .000
BETA: .000

REFERENCE INFORMATION
SREF 2690.0000 SD.FT.
LREF 474.8000 INCHES
BREF 936.8800 INCHES
XMRP 1076.7000 IN. NO
YMRP .0000 IN. NO
ZMRP 375.0000 IN. NO
SCALE .0100

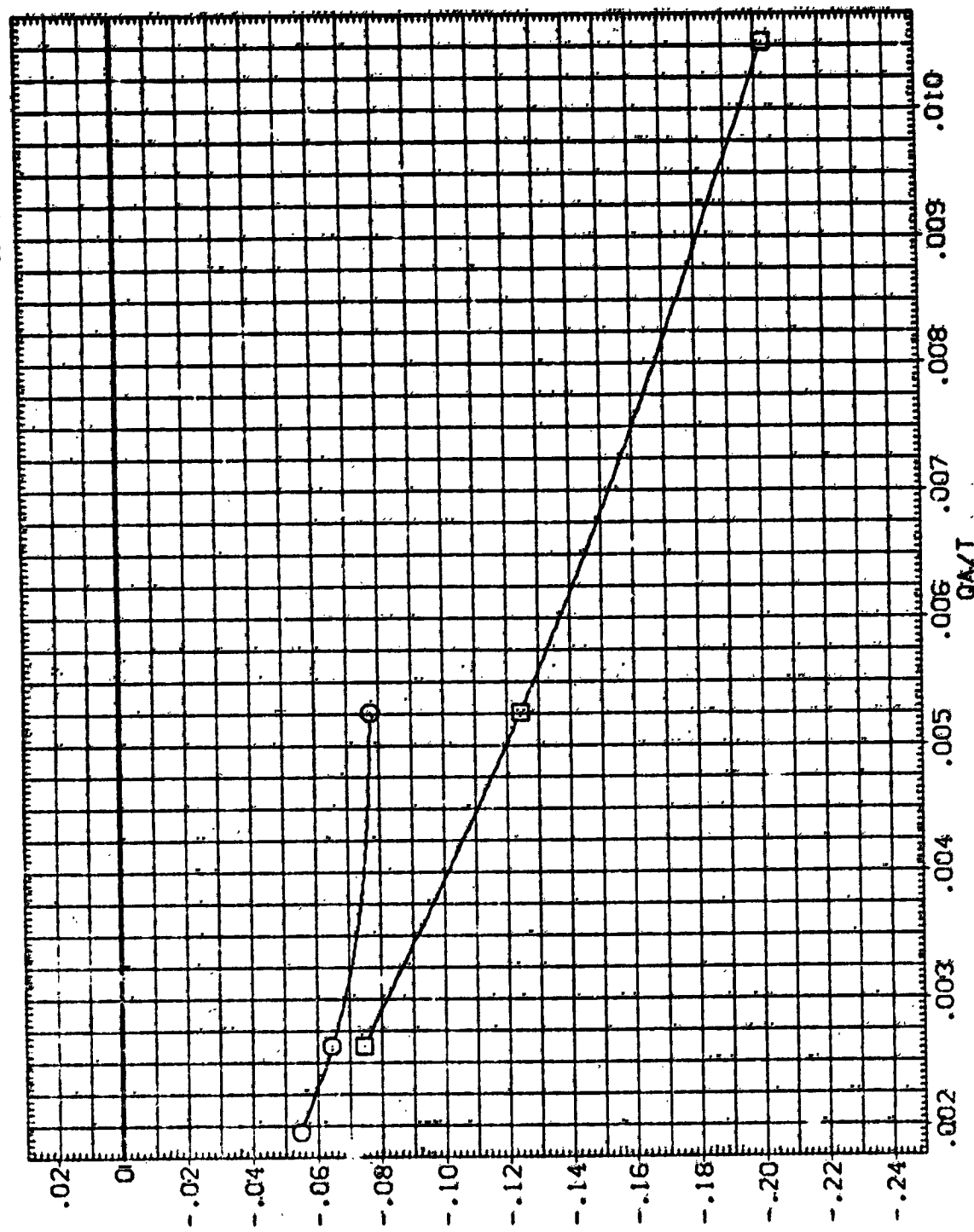


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(E)ALPHA = .00

DATA SET SYMBOL
(SJA004)
(SJA005)

CONFIGURATION DESCRIPTION
LARC CFMT 118 (MA-22)
LARC CFMT 118 (MA-22)

ELEVON
.000
.000

NO. JET
4.000
2.000

BFLAP
.000
.000

BETA
.000
.000

REFERENCE INFORMATION
SREF 2690.0000 SO. FT.
LREF 474.8880 INCHES
BREF 936.8880 INCHES
XRRP 1076.7000 IN. X0
YRRP .0000 IN. Y0
ZRRP 175.0000 IN. Z0
SCALE .0100

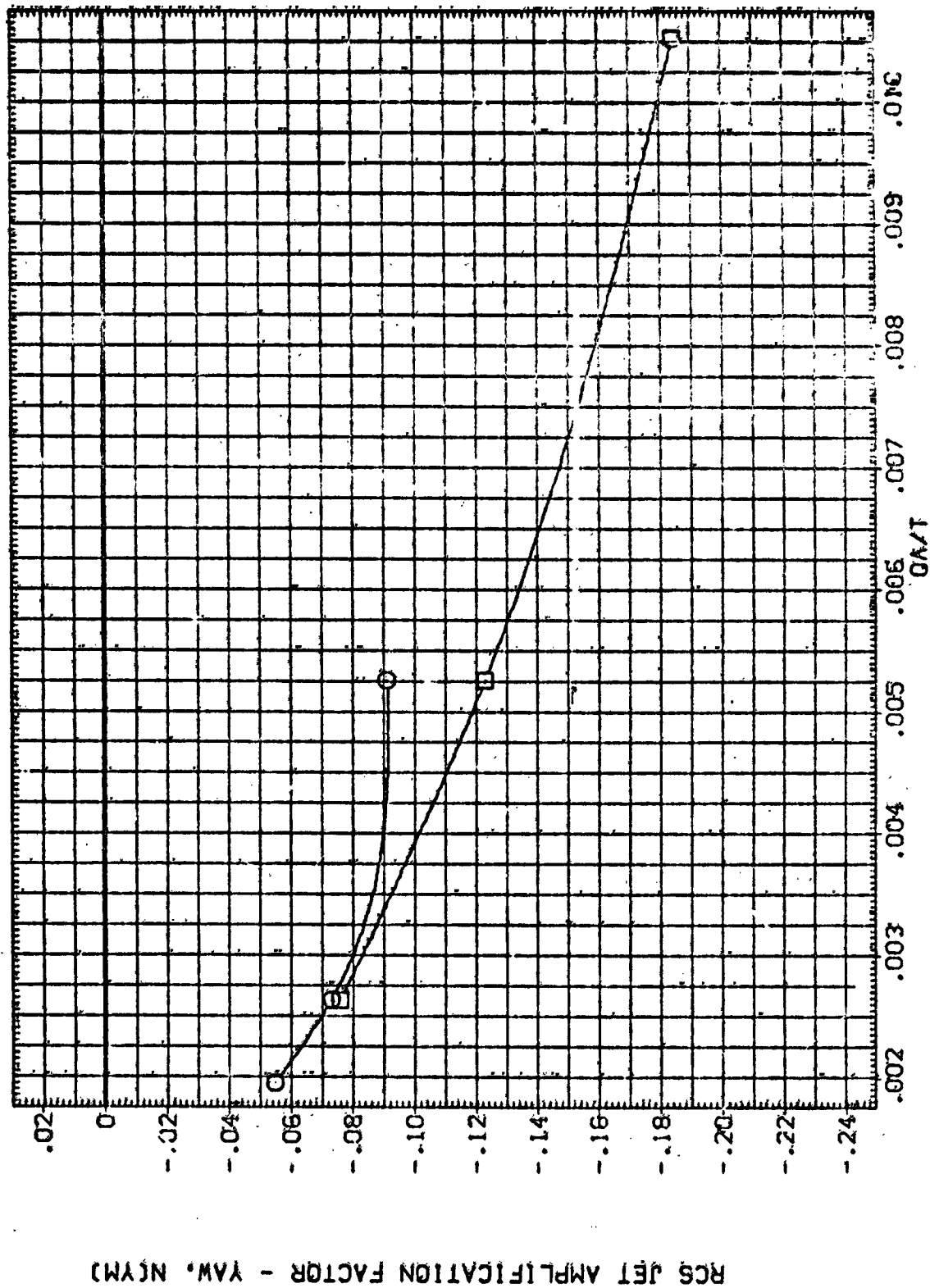


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS. N51.N85

(FIALPHA = 2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(S1A004) □ C1N51 LABE CFHT 118 (MA-22)

(S1A005) □ C1N65 LABE CFHT 118 (MA-22)

ELEVON NO JET BORLAP BETA

.000 .000 .000

.000 .000 .000

REFERENCE INFORMATION

SREF 2690.0000 SQ. FT.

LREF 474.8000 INCHES

BREF 918.6300 INCHES

XMRP 1076.7000 IN. X

YMRP 0.0000 IN. Y

ZMRP 375.0000 IN. Z

SCALE .0100

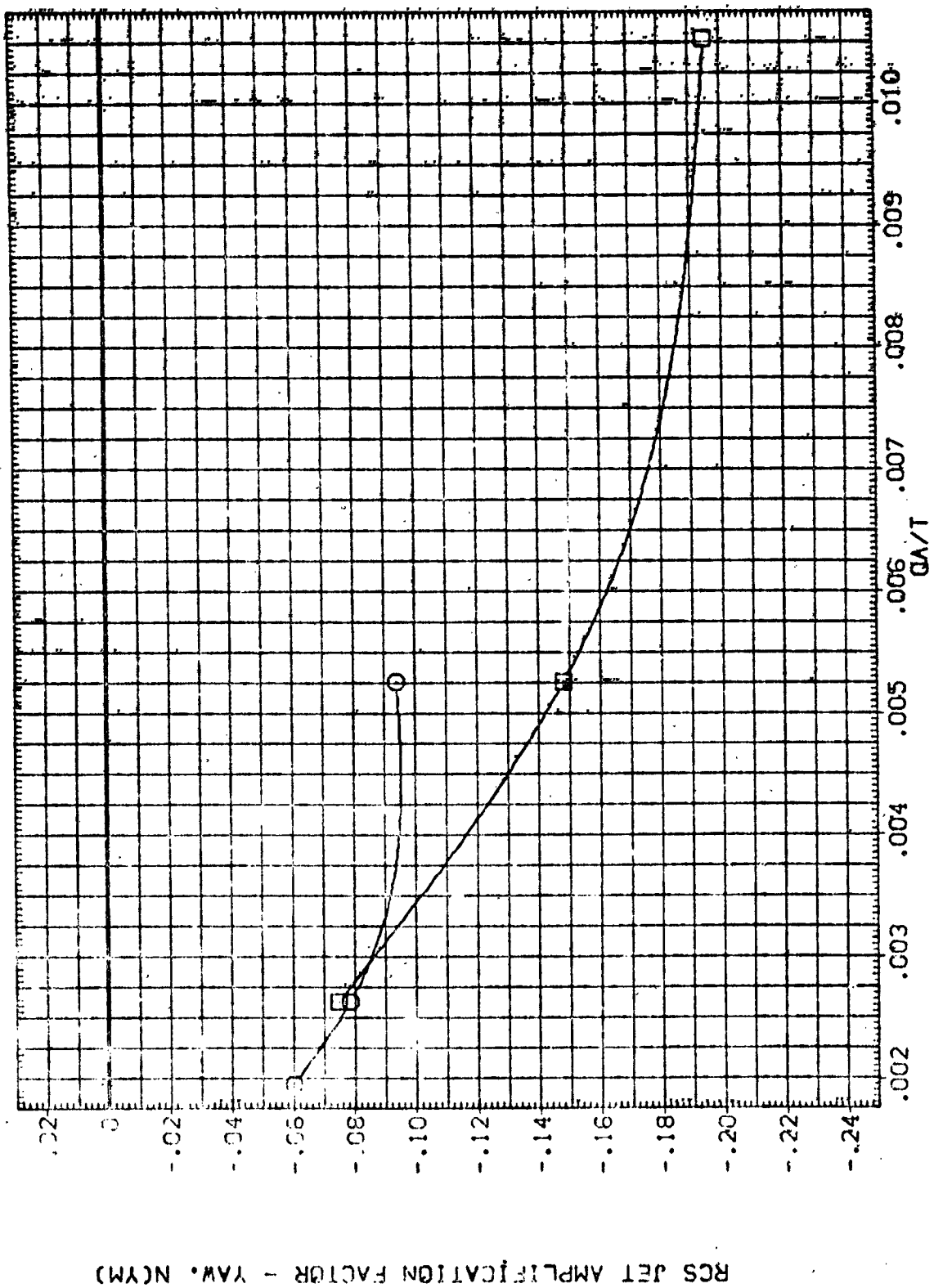


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(G)ALPHA = 4.00

DATA SET SYMBOL: CSJA004.1 (SJA006.1) ☐ QIN51 QIN85

CONFIGURATION DESCRIPTION: LARC CFMT 118 (MA-22) LARC CFMT 118 (MA-22)

ELEVON: .000 .000

NO. JET: 4.000 2.000

BOFLAP: .008 .008

BETA: .008 .008

REFERENCE INFORMATION:

SREF	2690.0000	50. FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7800	IN. 10
YMRP	0000.0000	IN. 10
ZMRP	375.0000	IN. 20
SCALE	0100	

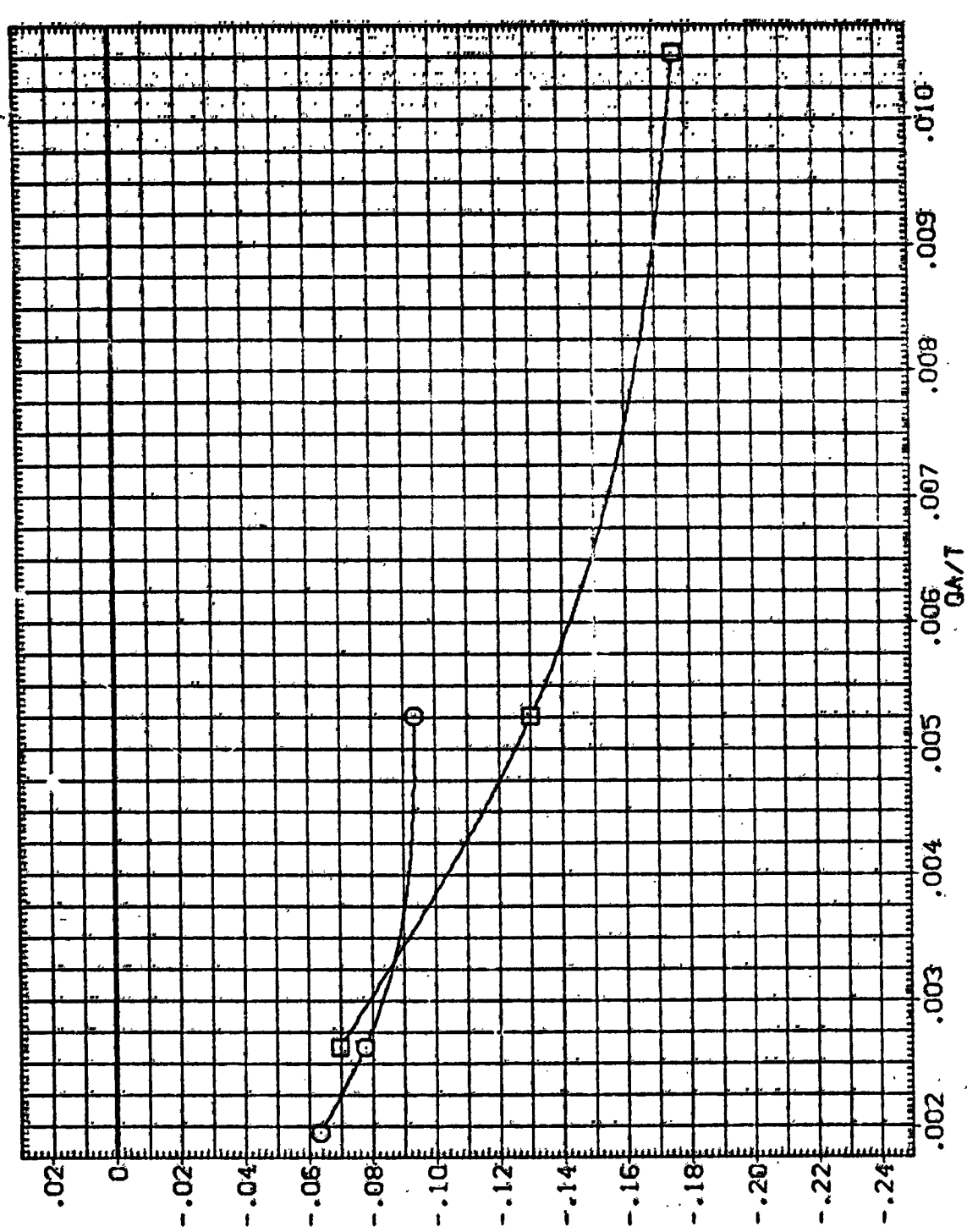
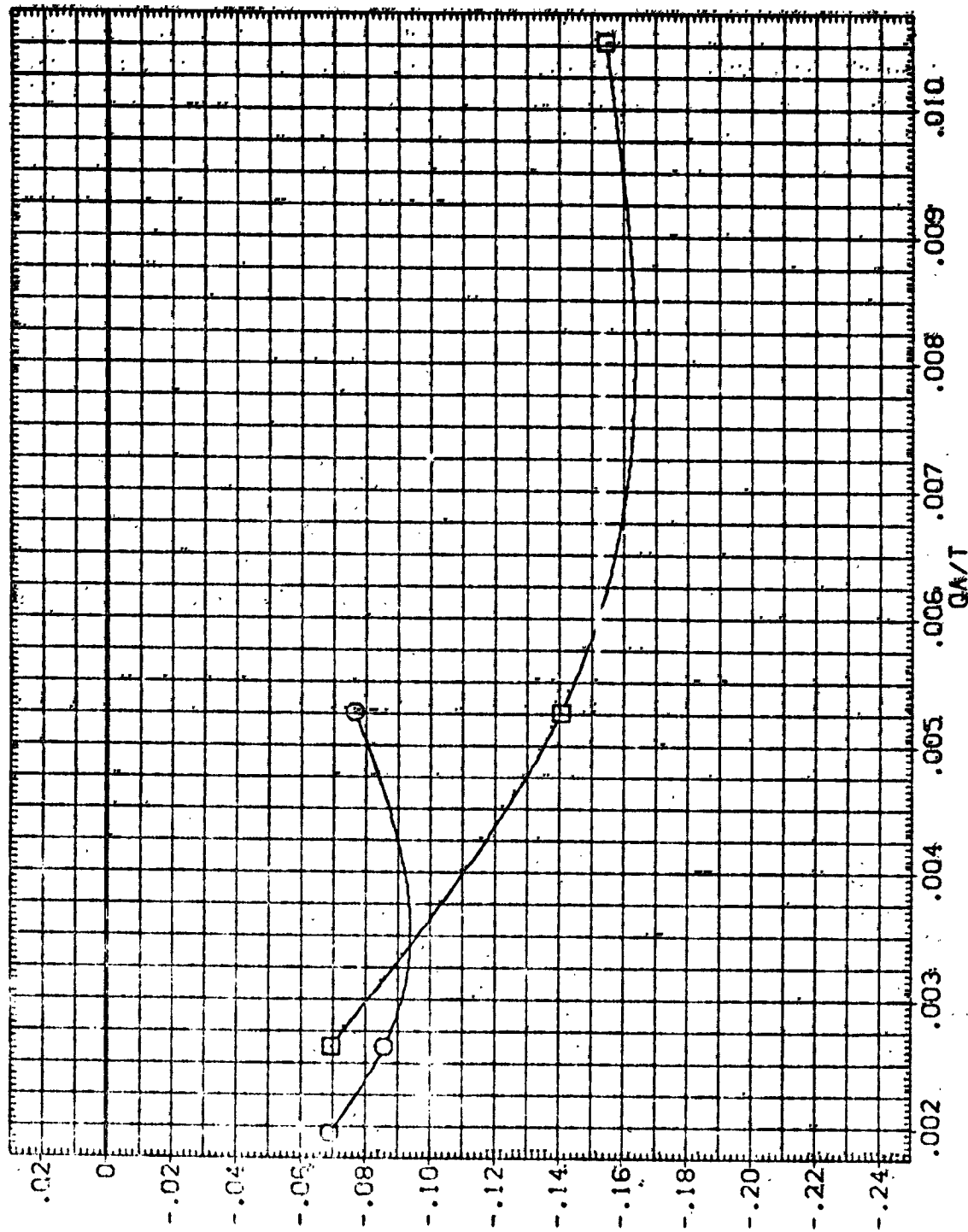


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(H)ALPHA = 6.00

DATA SET SYMBOL: 01N51
 CONFIGURATION DESCRIPTION: LARC CFHT 118 (MA-22)
 REFERENCE INFORMATION: SREF 2680.0000 SQ.FT.
 LREF 474.8008 INCHES
 BREF 936.6800 INCHES
 XMRP 1096.2000 IN. YD
 YMRP 375.0000 IN. ZD
 ZMRP 0100
 SCALE
 ELEVON: .000
 NO. JET: 4.000
 BOLTAP: .000
 BETA: .000



RCS JET AMPLIFICATION FACTOR - YAW, N(YM)

FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

() ALPHA = 8.00

DATA SET SYMBOL (SJA004) (SJA005)
 QH001 LARC CFH1 F18 (HA-22)
 QH005 LARC CFH1 F18 (HA-22)

ELEVON .000
 NO JET 4.000
 BOFLAP .000
 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. 10
 YMRP .0000 IN. 10
 ZMRP 375.0000 IN. 20
 SCALE .0100

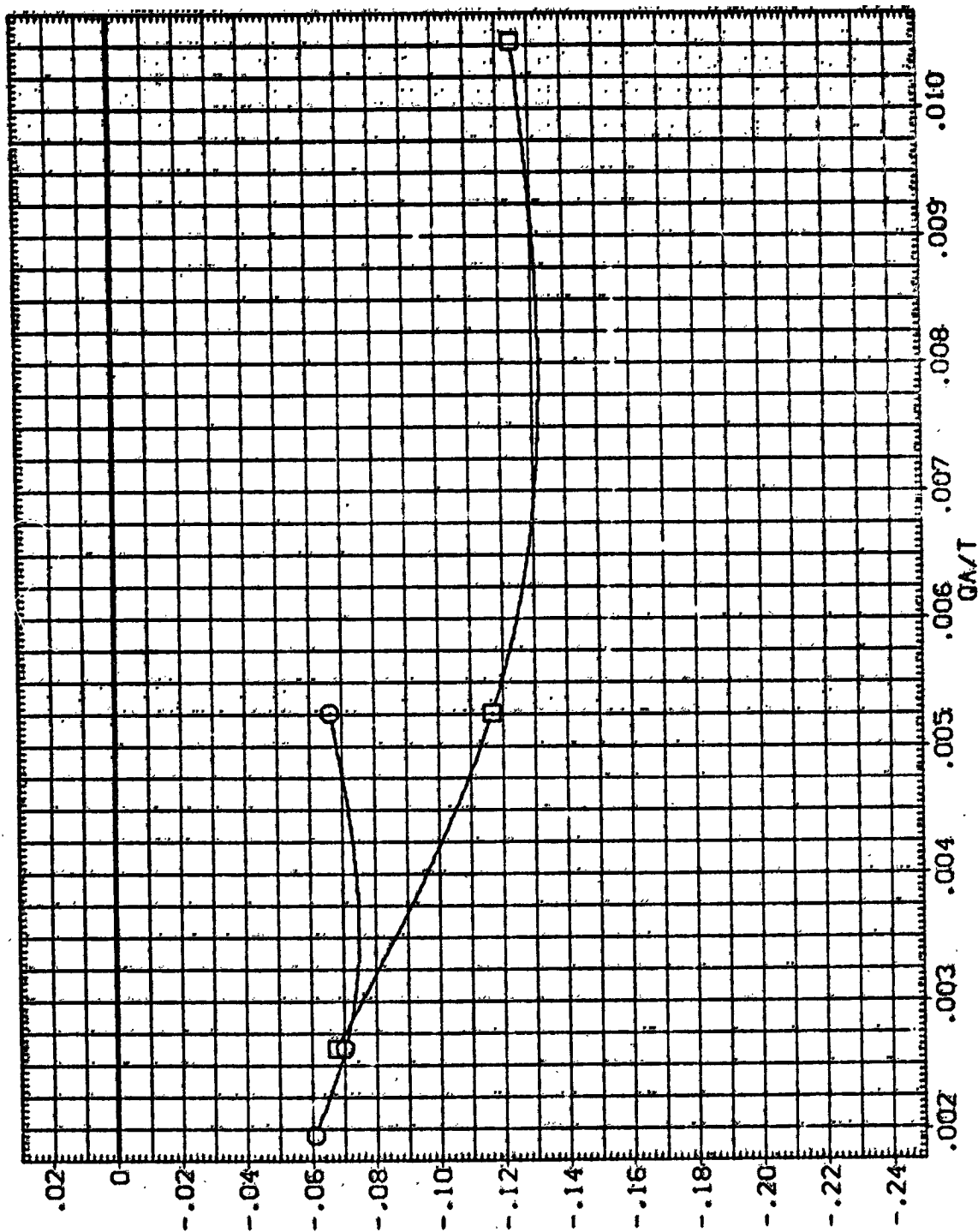


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, NS1,N85

(J)ALPHA = 10.00

DATA SET SYMBOL: 01N85
 CONFIGURATION DESCRIPTION: LARC CENT 118 (MA-22)
 LARC CENT 118 (MA-22)

ELEVON: .000
 NO. JET: 4.000
 BDF LAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SPREF: 2690.000 50. FT.
 LREF: 474.800 INCHES
 BRP: 936.600 INCHES
 YPRP: 1076.200 IN. X0
 ZPRP: .000 IN. Y0
 SCALE: 375.000 IN. Z0

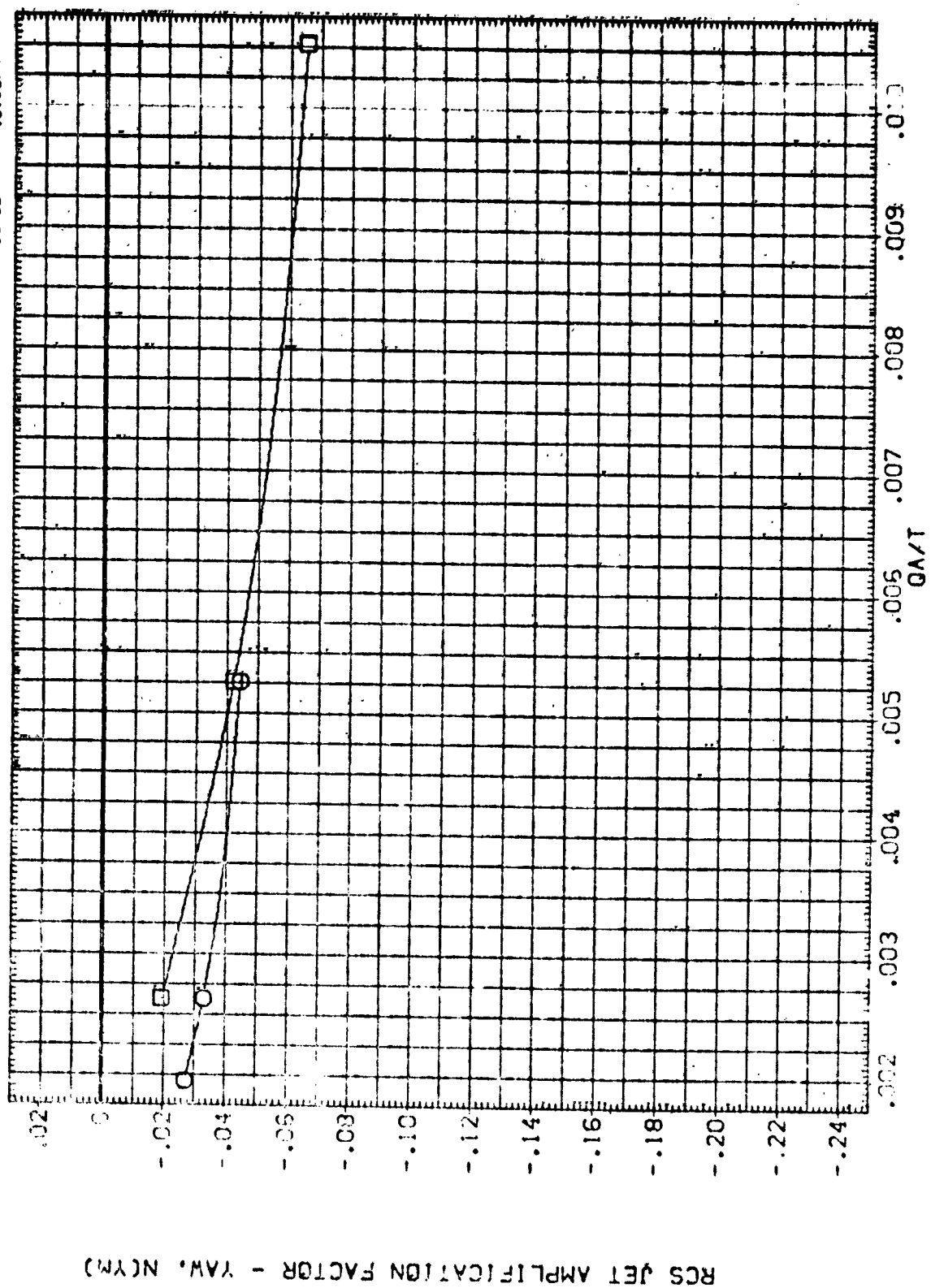


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

(K) ALPHA = 15.00

DATA SET SYMBOL: 01N51
(SJA804)
01N85
(SJA805)

CONFIGURATION DESCRIPTION:
LARC CFMT 118 (JA-22)
LARC CFMT 118 (MA-22)

ELEVON: .000
NO JET: 4.000
BOFLAP: .000
BETA: .000
REFERENCE INFORMATION:
SREF: 2630.0000
LREF: 474.8000
BREF: 936.6500
XPRP: 1076.7000
YPRP: .0000
ZPRP: 375.0000
SCALE: .0100

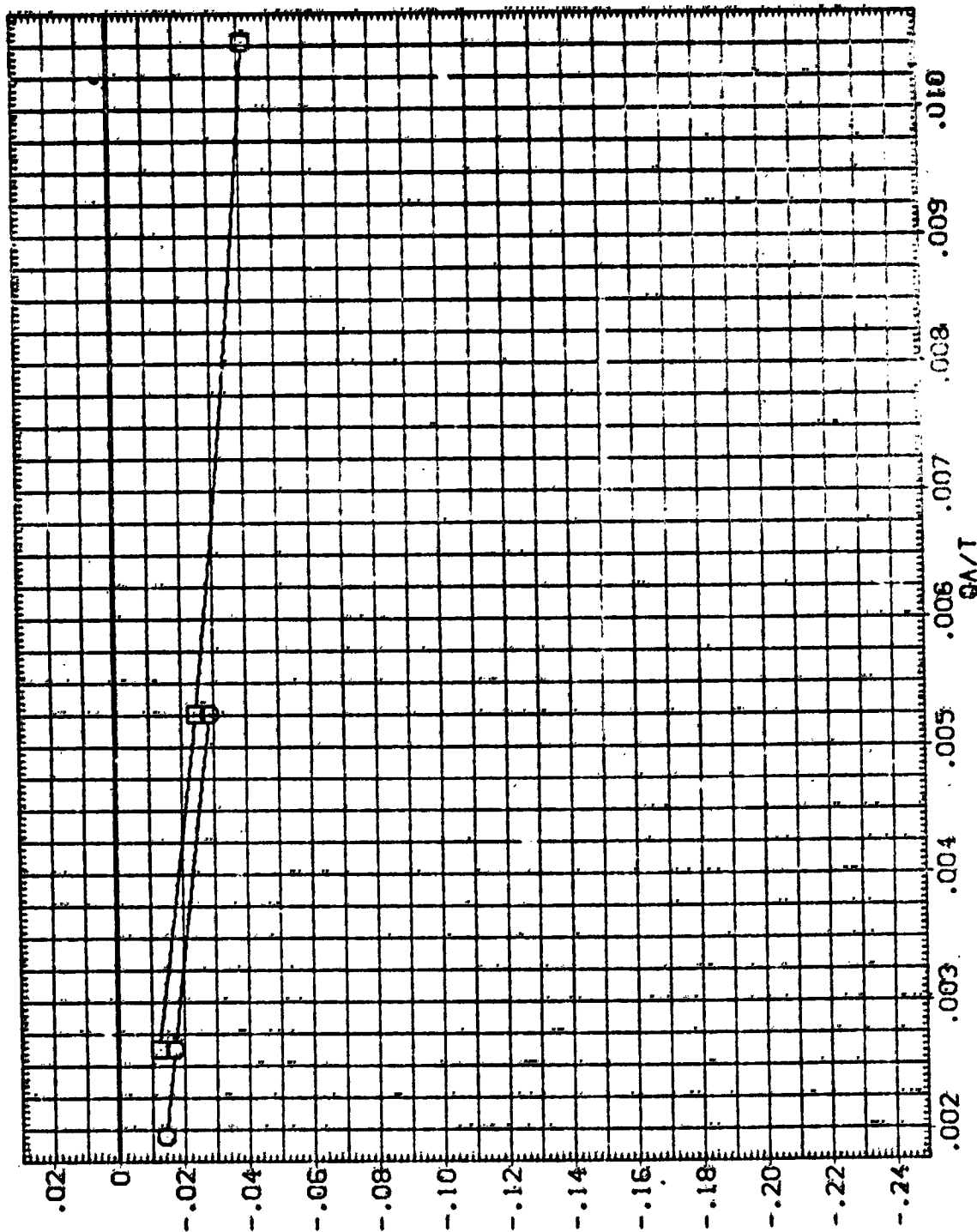


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(CL) ALPHA = 20.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BDFLAP		BETA		REFERENCE INFORMATION	
(SJA004)	QIN51	LARC CFHT 118 (MA-22)		.000	.000	4.000	.000	.000	.000	SREF	2690.0000	50. FT.	
(SJA005)	QIN85	LARC CFHT 118 (MA-22)		.000	.000	2.000	.000	.000	.000	LREF	474.8000	INCHES	
										BREF	938.6800	INCHES	
										XMRP	1076.7000	IN. X0	
										YMRP	.6080	IN. Y0	
										ZMRP	375.0000	IN. Z0	
										SCALE	.0100		

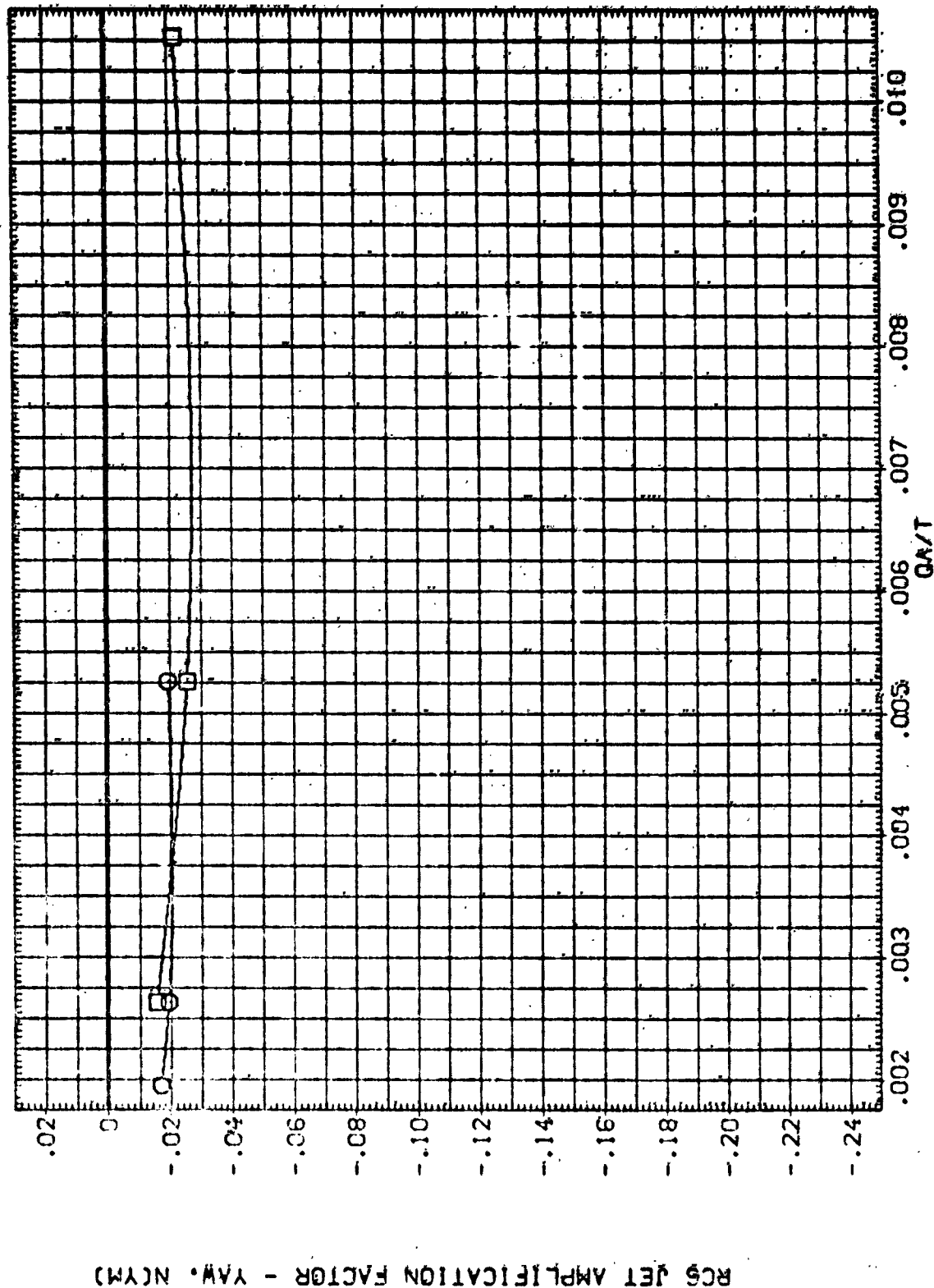


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

(N) ALPHA = 25.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SHAO04.) QUNSH LARC CFHT 118 (MA-22)
 (SHAO05.) QUNSS LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION
 .000 4.000 .000 SREF 2690.0000 SO.FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 XREF 936.6800 INCHES
 YREF 1076.7000 IN. YD
 ZREF .0000 IN. YD
 SCALE .0100

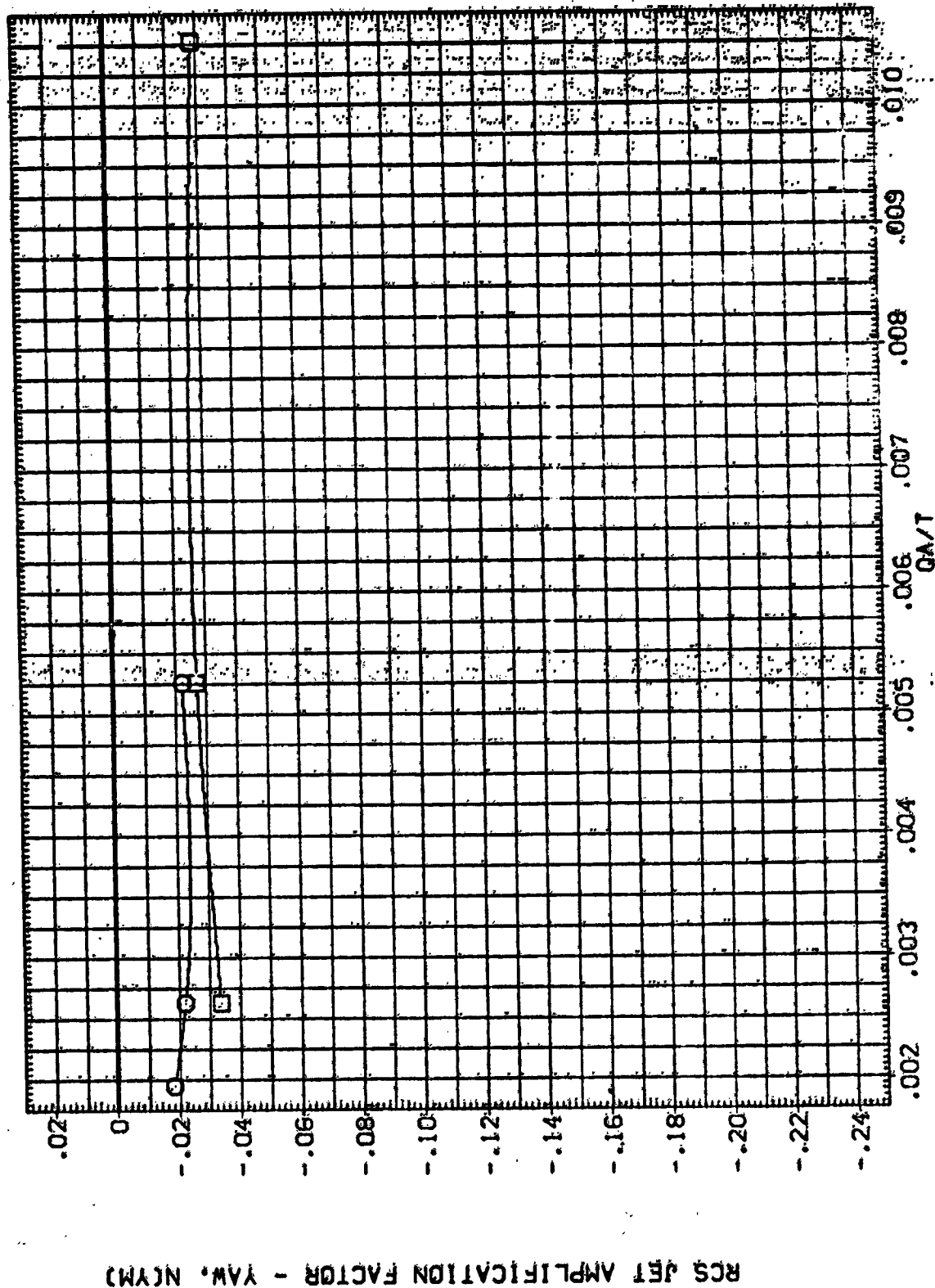


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(N)ALPHA = 30.00

DATA SET SYMBOL: 21N51
 (SACCS) 21N51
 (SACCS) 21N51

CONFIGURATION DESCRIPTION
 LARC CFHT 118 (MA-22)
 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
 .000 4.000 .000
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 50 FT
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XTRP 1076.7000 IN. 20
 YTRP .0000 IN. 70
 ZTRP 375.0000 IN. 70
 SCALE .0100

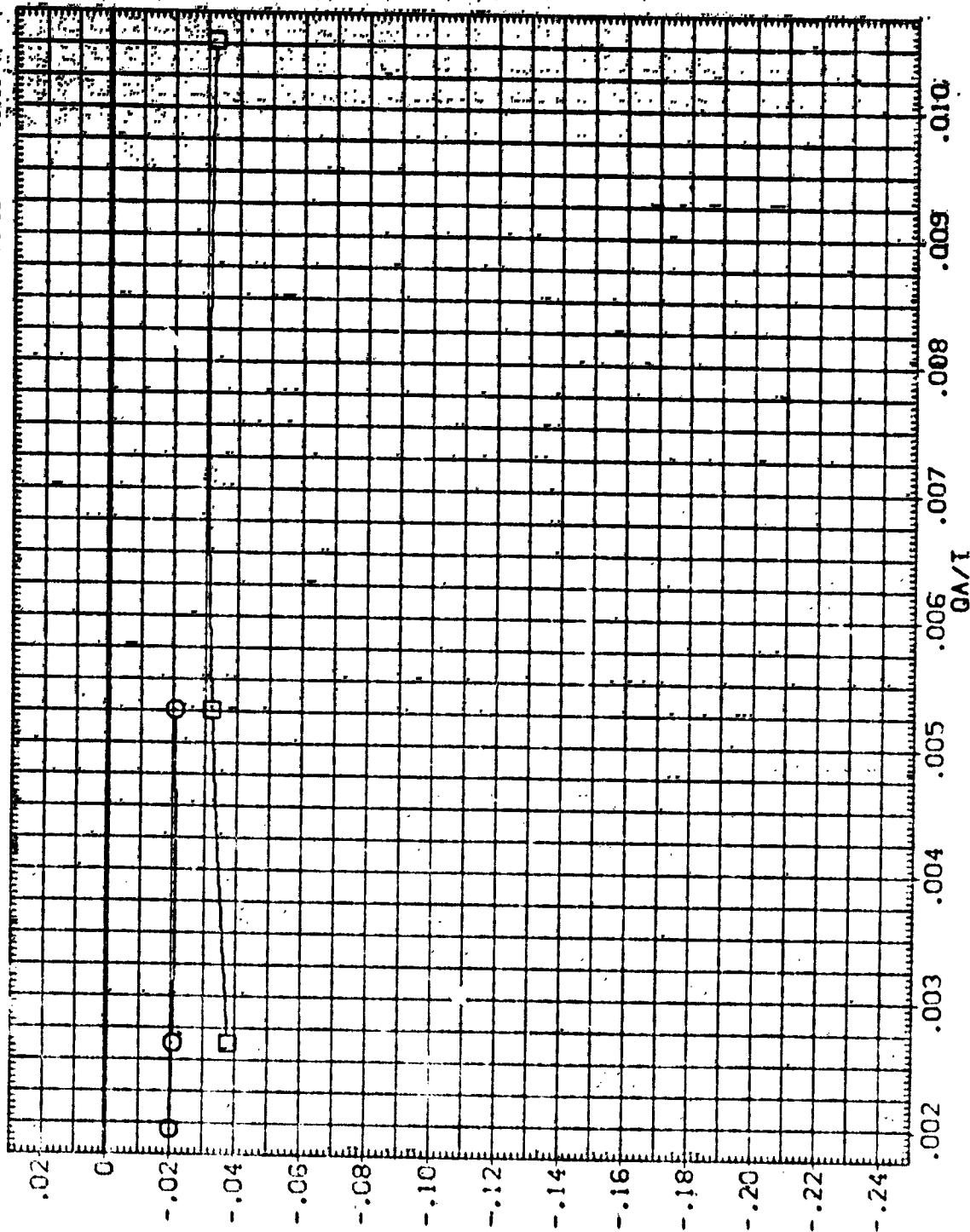


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(C) ALPHA = 35 00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NG JET		BBFLAP		BETA		REFERENCE INFORMATION			
(SJA004)	QINS1	LARC CFHT 118 (MA-22)		.000	.000	4.000	.000	.000	.000	SREF	2690.0000	SR.FT.			
(SJA003)	QIN85	LARC CFHT 118 (MA-22)		.000	.000	2.000	.000	.000	.000	LREF	474.6000	INCHES			
										BREF	936.6800	INCHES			
										XREF	1076.7000	IN. X0			
										YREF	.0000	IN. Y0			
										ZREF	375.0000	IN. Z0			
										SCALE	.0100				

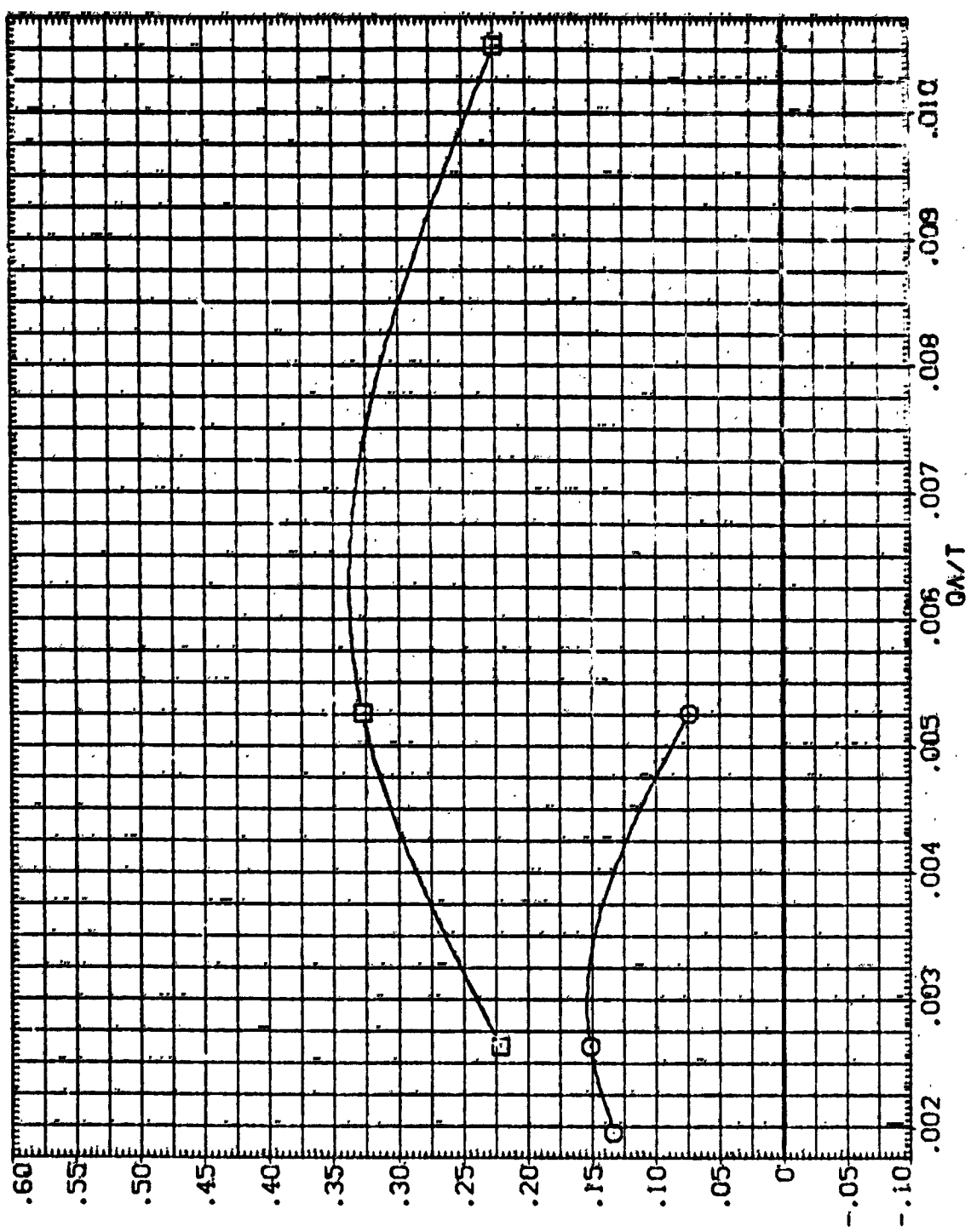


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N85

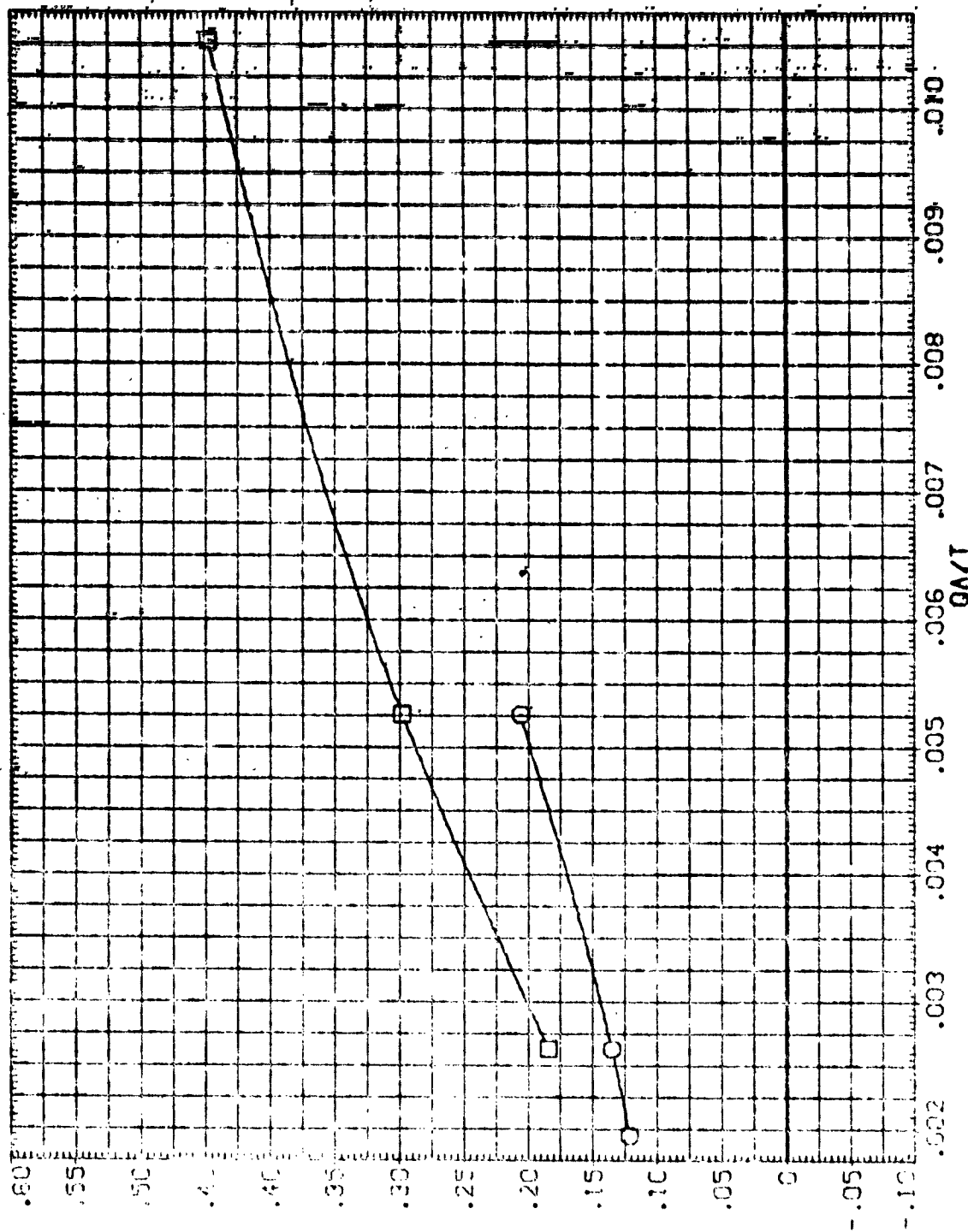
CATALPHA = -8.00

Q101 SET SYMBOL Q101
 (SQUAD) (SQUAD)
 (SQUAD) (SQUAD)

CONFIGURATION DESCRIPTION
 LARG CFT 118 (MA-22)
 LARG CFT 118 (MA-22)

ELEVON NO JET BOFLAP ZETA
 .000 4.000 .000
 .000 2.000 .000

REFERENCE INFORMATION
 STEP 2090.0000 SD.FT.
 LREF 474.8000 INCHES
 EREF 928.6800 INCHES
 XMRP 1076.2000 IN. YD
 YMRP .0000 IN. YD
 ZMRP 375.0000 IN. YD
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

(B) ALPHA = -6.00

DATA SET SYMBOL: 8
 (SJA004) 1
 (SJA005) 2
 QINS1 LARC CFHT 118 (NA-22)
 QINS2 LARC CFHT 118 (NA-22)

ELEVON: .000
 NO. JET: 4.000
 BDFLIP: .000
 BETA: .000

REFERENCE INFORMATION:
 SPREF 2650.0000 INCHES
 LREF 474.8000 INCHES
 BRPF 936.8800 INCHES
 XPREF 1076.7000 INCHES
 YPREF .0000 INCHES
 ZPREF 375.0000 INCHES
 SCALE .0100

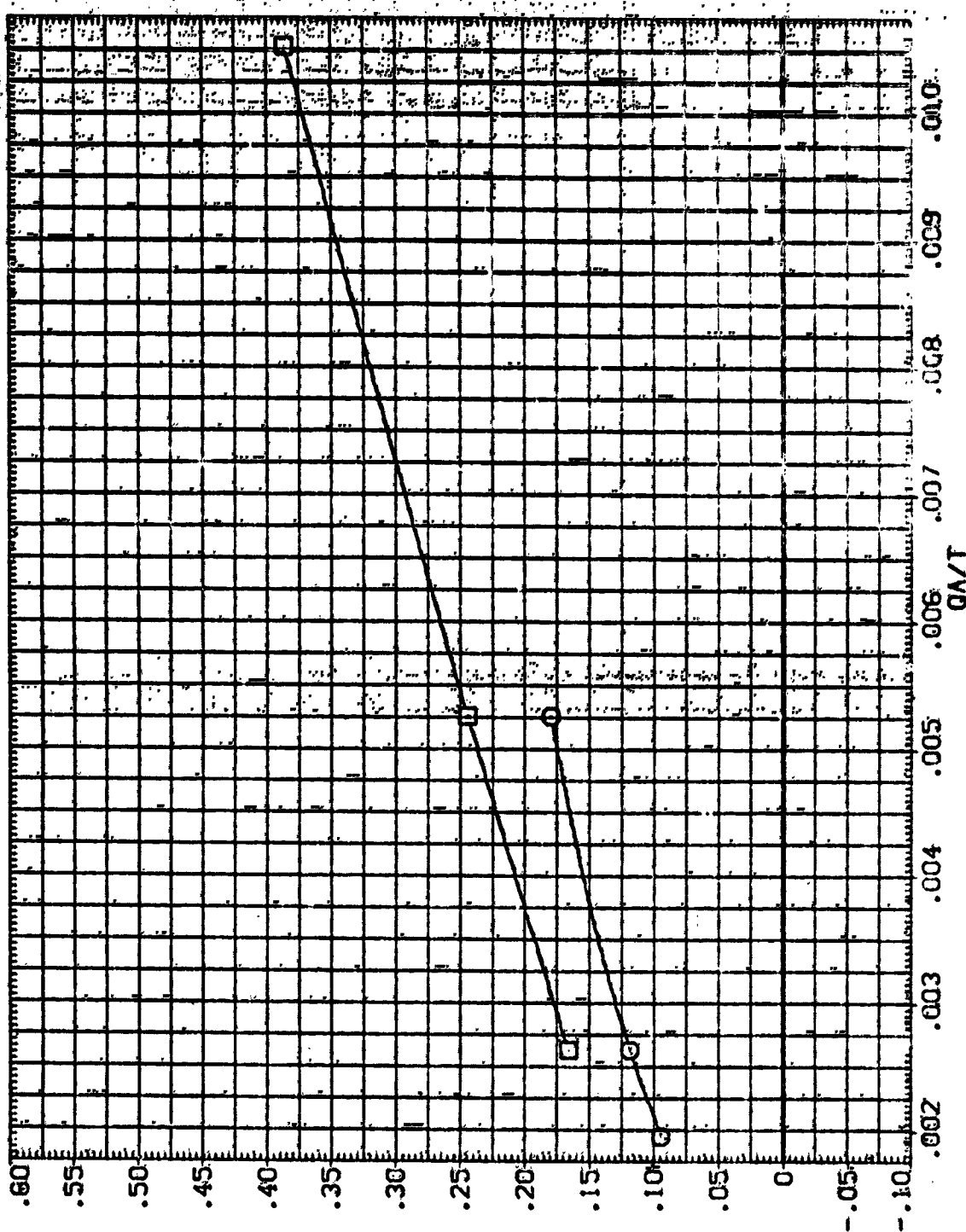
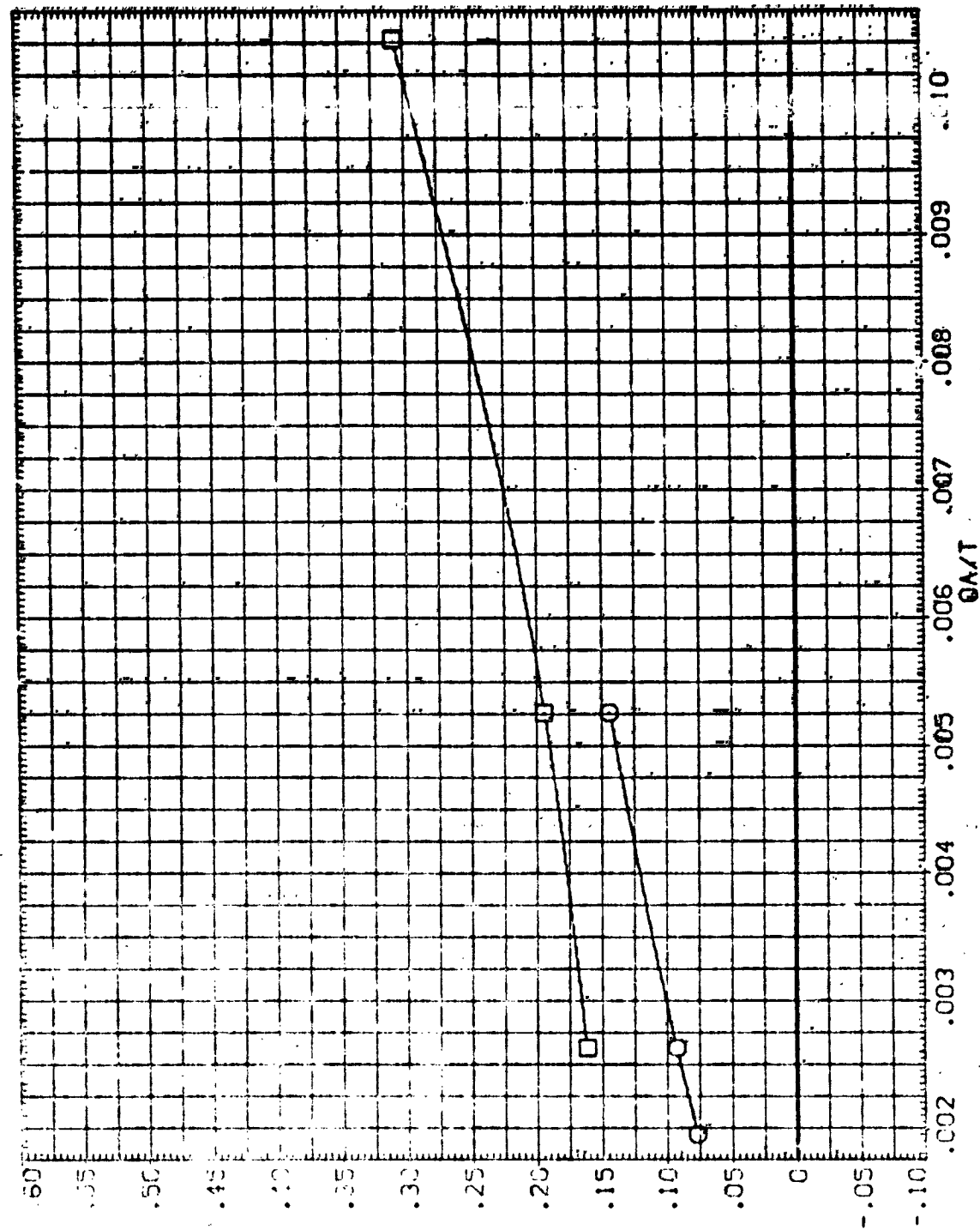


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, NS1, NS5

(C)ALPHA = -4.00

DATA SET SYMBOL: 3
 CONFIGURATION DESCRIPTION: LANC CENT 118 (MA-22)
 LANC CENT 118 (MA-22)
 REFERENCE INFORMATION:
 SREF: 2690.00 SQ.FT.
 LREF: 474.00 INCHES
 BREF: 936.00 INCHES
 XMRP: 1076.00 IN. 10
 YMRP: 0.00 IN. 10
 ZMRP: 375.00 IN. 20
 SCALE: 0.000

ELEVON: 0.000
 NO. JET: 4.000
 80% LAP: 0.000
 BETA: 0.000



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NCSF

FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(0) ALPHA = -2.00

DATA SET SYMBOL: ☐ (SJA004)
 CONFIGURATION: LARC CPMT 118 (MA-22)
 DESCRIPTION: LARC CPMT 118 (MA-22)

ELEVON: .000
 NO. JET: 4.000
 BOFLAP: .000
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2690.0000 SQ. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XRRP: 1076.7000 IN. 10
 YRRP: .0000 IN. 10
 ZRRP: 375.0000 IN. 20
 SCALE: .0100

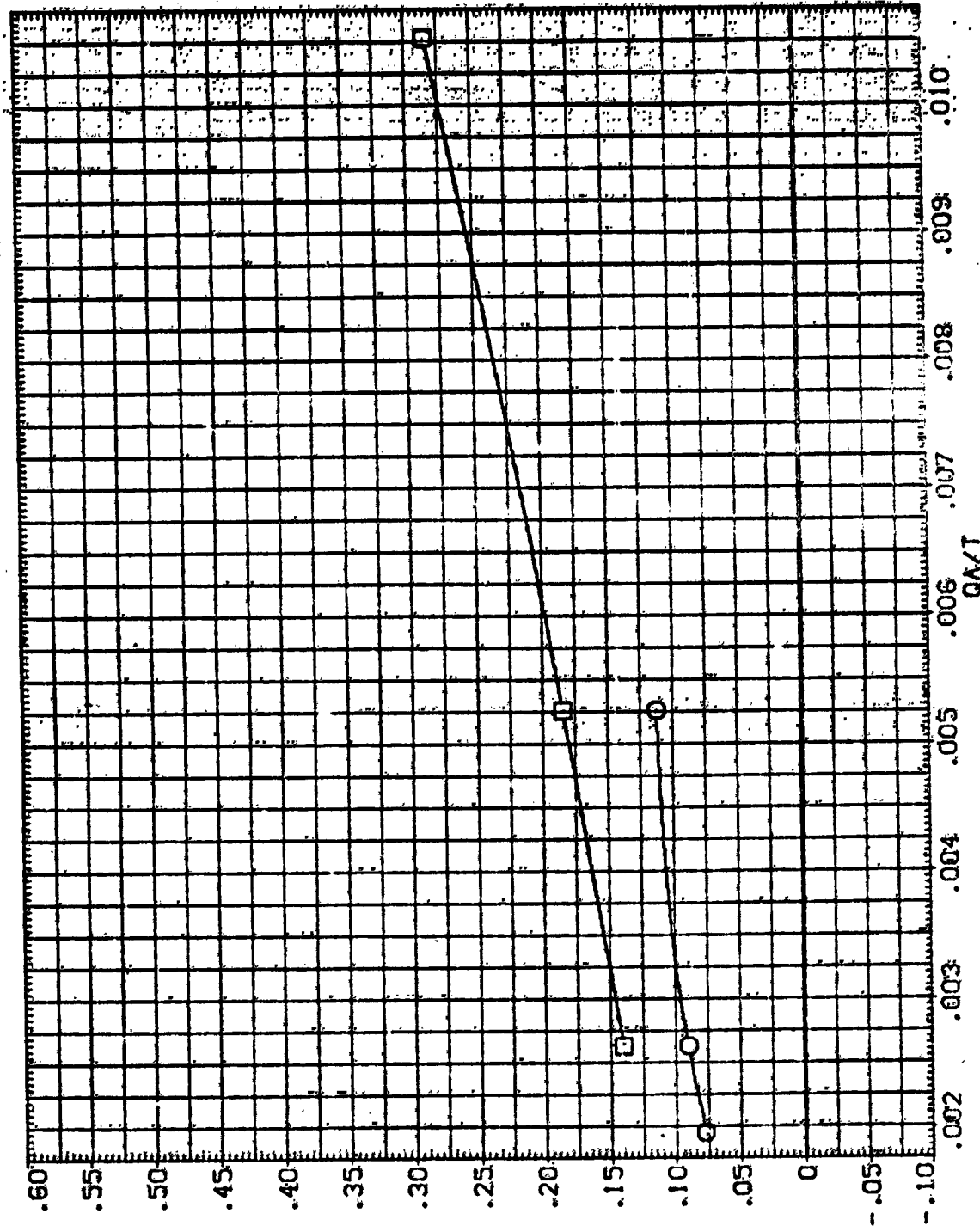


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, NS1.N85

(E)ALPHA = .00

REFERENCE INFORMATION
 SREF 2550.0000 IN. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XRRP 1076.7000 IN. NO.
 YRRP .0600 IN. NO.
 ZRRP 375.0000 IN. NO.
 SCALE .0100

ELEVON NO. JET BOFLAP BETA
 .000 4.080 .000
 .000 2.000 .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (01-074) B CINS1 LARG CFMT 118 (PA-22)
 (01-075) B CINS9 LARG CFMT 118 (PA-22)

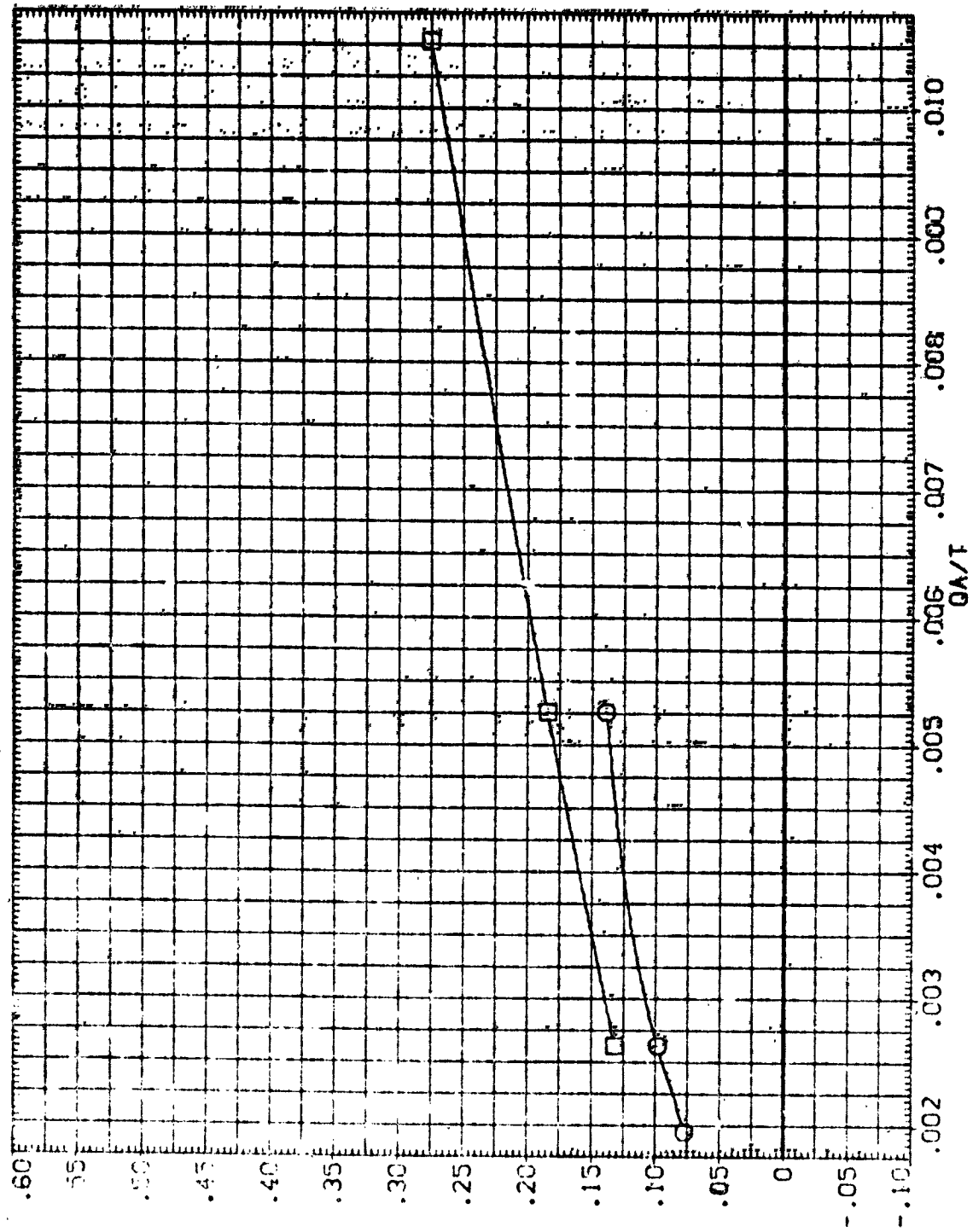


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(FOALPHA = 2.00

DATA SET SYMBOL: 01NS1 01NS5
 (SHA004) (SHA005)
 CONFIGURATION DESCRIPTION:
 LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)

ELEVON: .000
 NO. JET: 4.000
 BDFLAP: .000
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2630.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 938.5800 INCHES
 XREF: 1676.7000 IN. XG
 YREF: .0000 IN. YG
 ZREF: 375.0000 IN. ZG
 SCALE: .0100

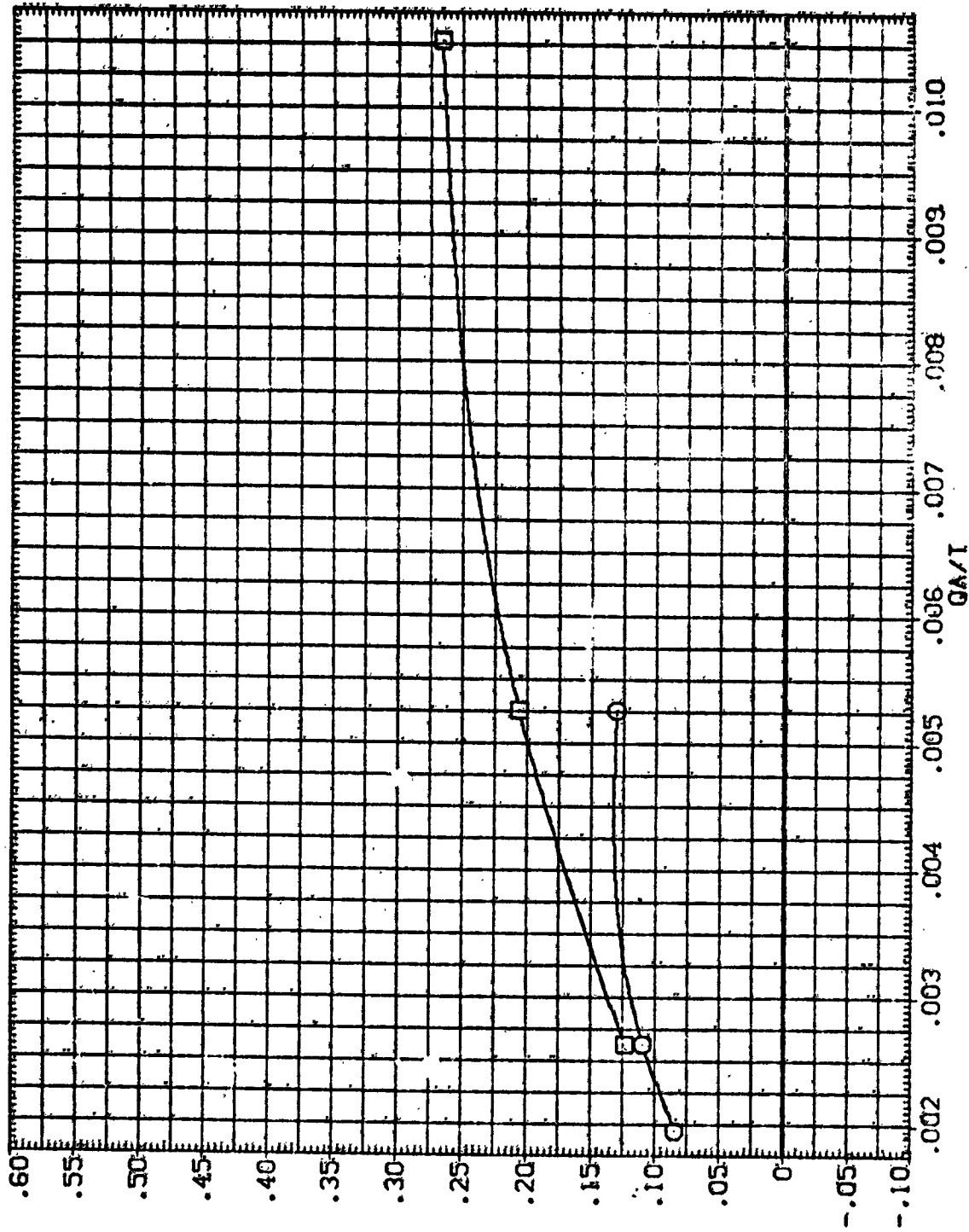


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51.N85

(G) ALPHA = 4.00

DATA SET SYMBOL: (SJA004) 8
 (SJA003) 8
 CONFIGURATION DESCRIPTION: LARC GENT 118 (MA-22)
 LARC GENT 118 (MA-22)
 REFERENCE INFORMATION: SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6880 INCHES
 XMRP 1096.7800 IN. X
 YMRP .0000 IN. Y
 ZMRP 375.0000 IN. Z
 SCALE .0100

ELEVON .000
 NO JET 4.000
 BOFLAP .000
 BETA .000

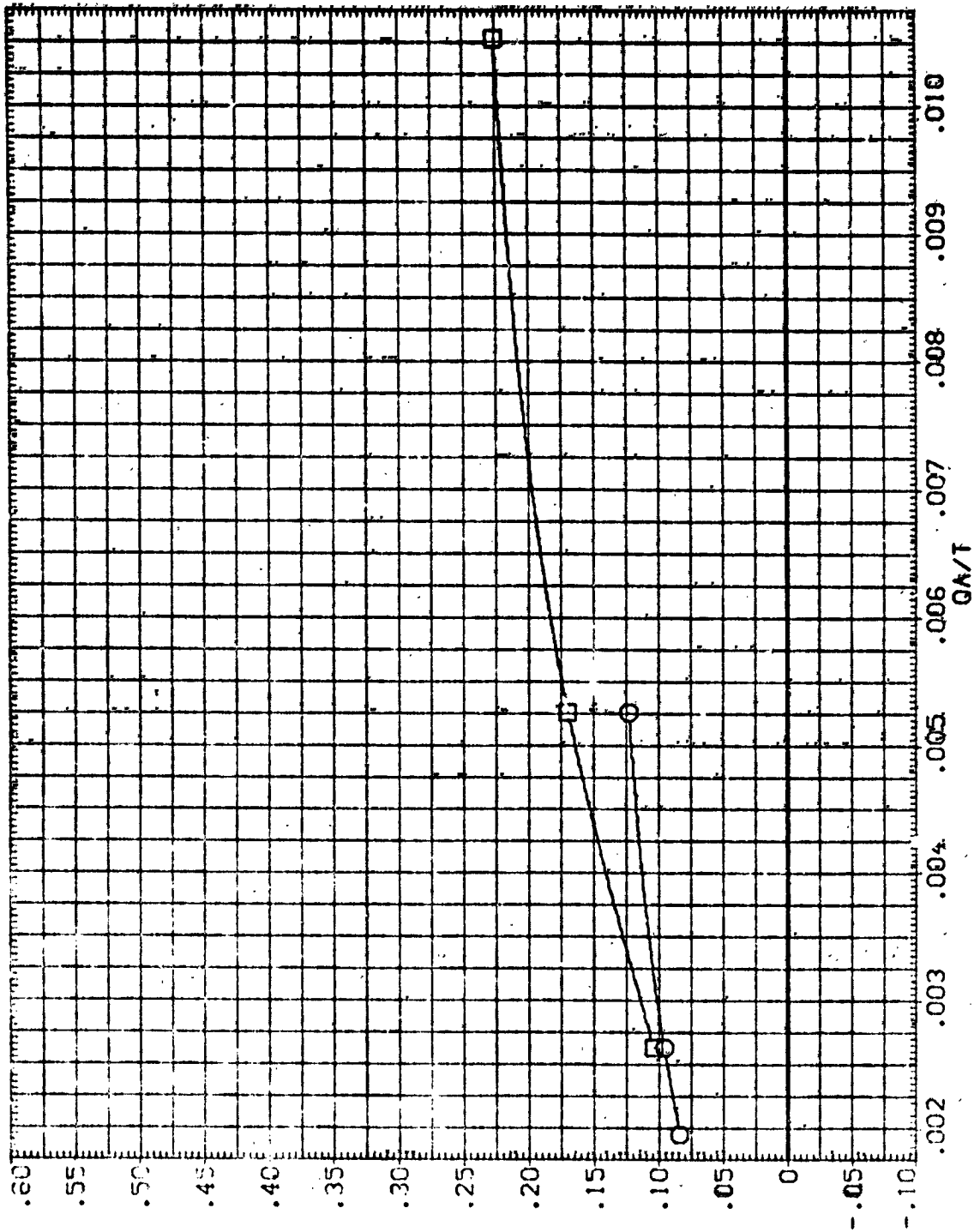


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(H)ALPHA = 6.00

DATA SET SYMBOL: **Q1N31** CONFIGURATION DESCRIPTION: **LARC CPH# 118 (MA-22)**
Q1N85 **LARC CPH# 118 (MA-22)**

REFERENCE	FORMATION	SO. FT.	INCHES
SREF	2690	.000	.000
LREF	474	.000	.000
BREF	936	.000	.000
XMRP	1026	.000	.000
YMRP	3300	.000	.000
ZMRP	375	.000	.000
SCALE	3100		

ELEVON: .000 NO JET: 4.009 BOFLAP: .000 BETA: .000

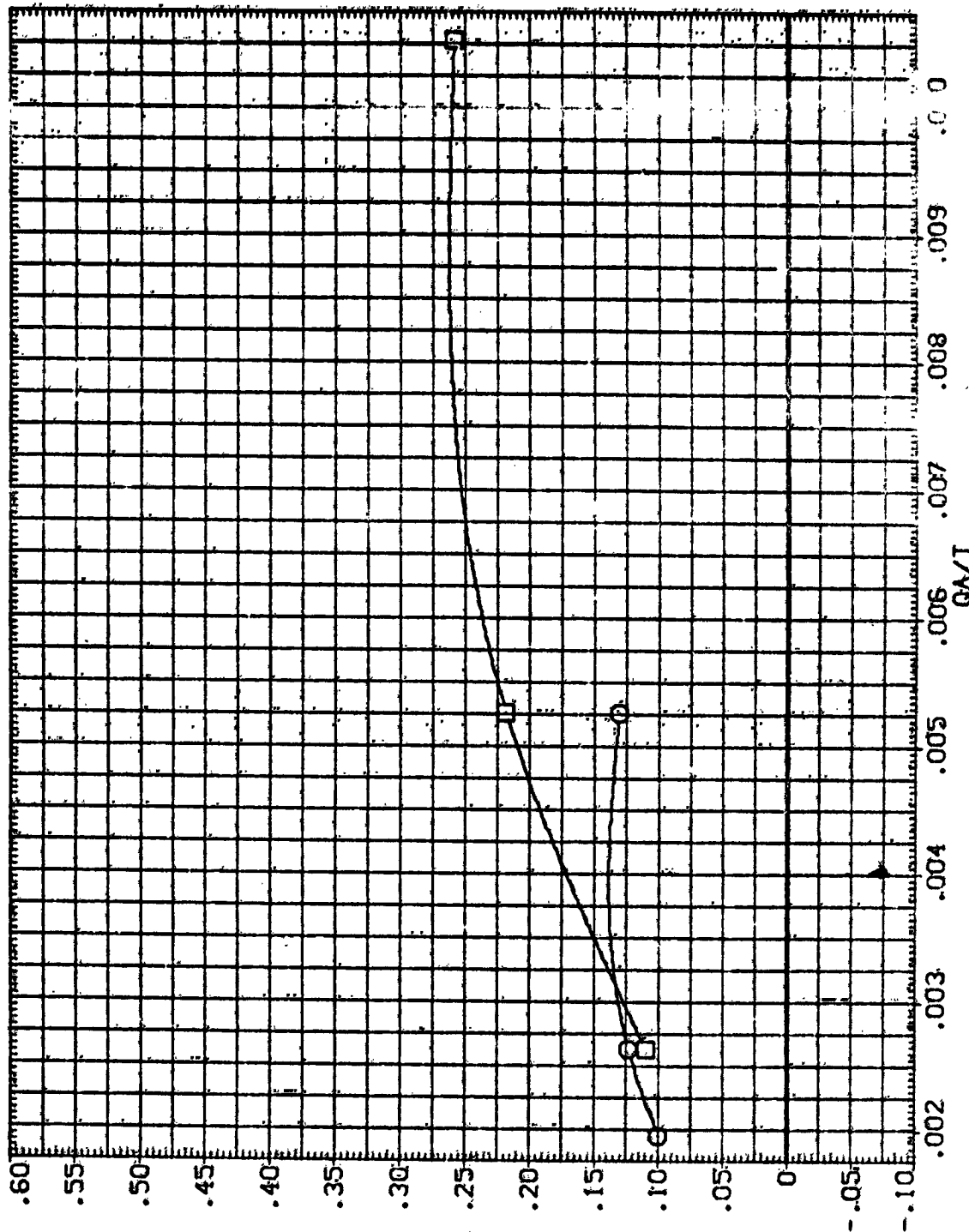


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(T)ALPHA = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (000004) H LARC CMT 118 (HA-22)
 (000005) H LARC CMT 118 (HA-22)

ELEVON NO. JET 88FLAP BETA
 .000 4.000 .000
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2600.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.5800 INCHES
 ZRRP 1076.7000 IN. TO
 YRRP .6000 IN. TO
 ZRRP 375.0000 IN. TO
 SCALE .0100

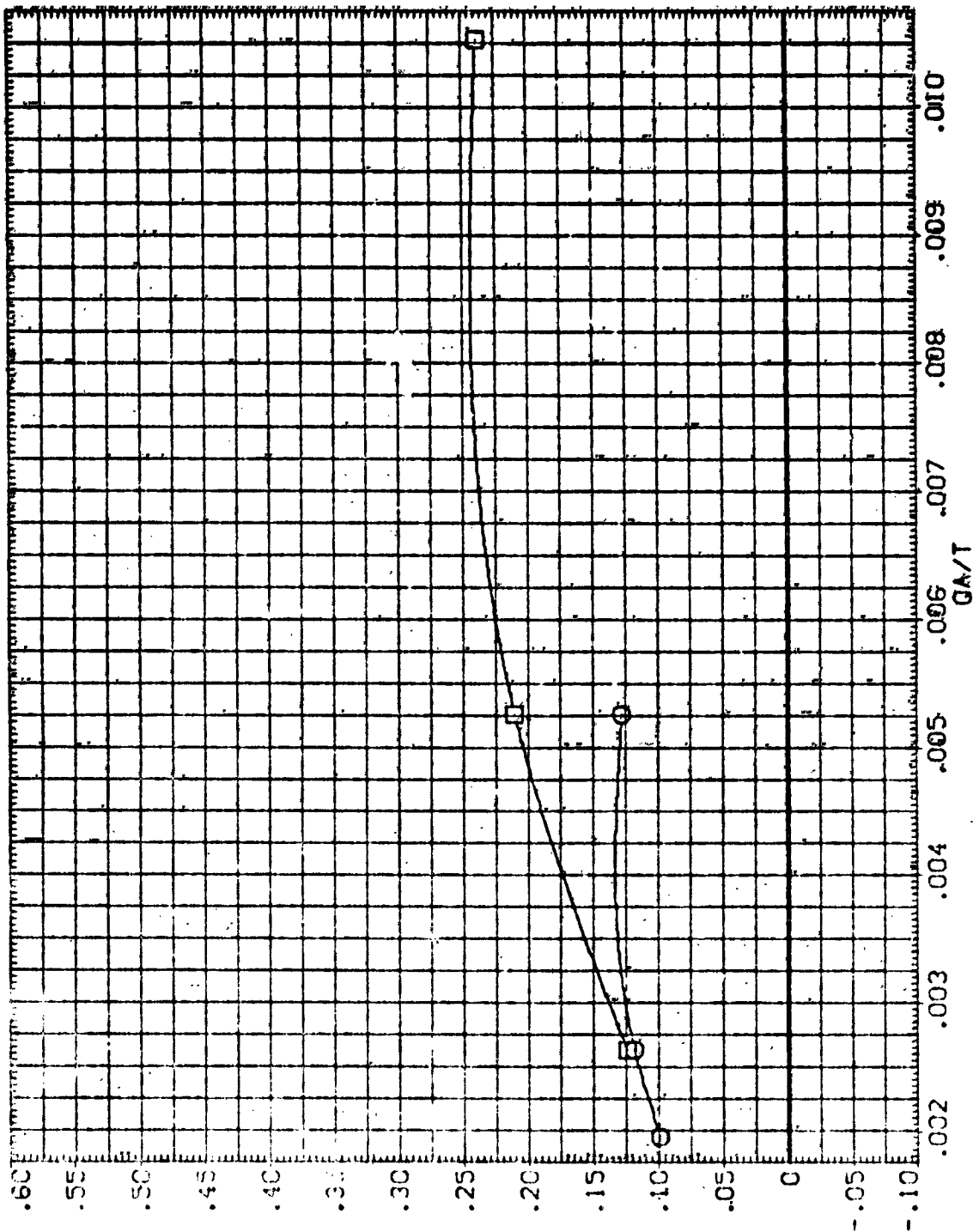


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(JJ)ALPHA = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BD FLAP	BETA	REFERENCE INFORMATION
(SJA004)	QUIN1 LARC CFMT 118 (MA-221)	.000	4.000	.000	.000	2690.0000
(SJA005)	QUIN2 LARC CFMT 118 (MA-222)	.000	2.000	.000	.000	424.8000
						936.6800
						1076.7000
						0.0000
						375.0000
						SCALE
						0.0100

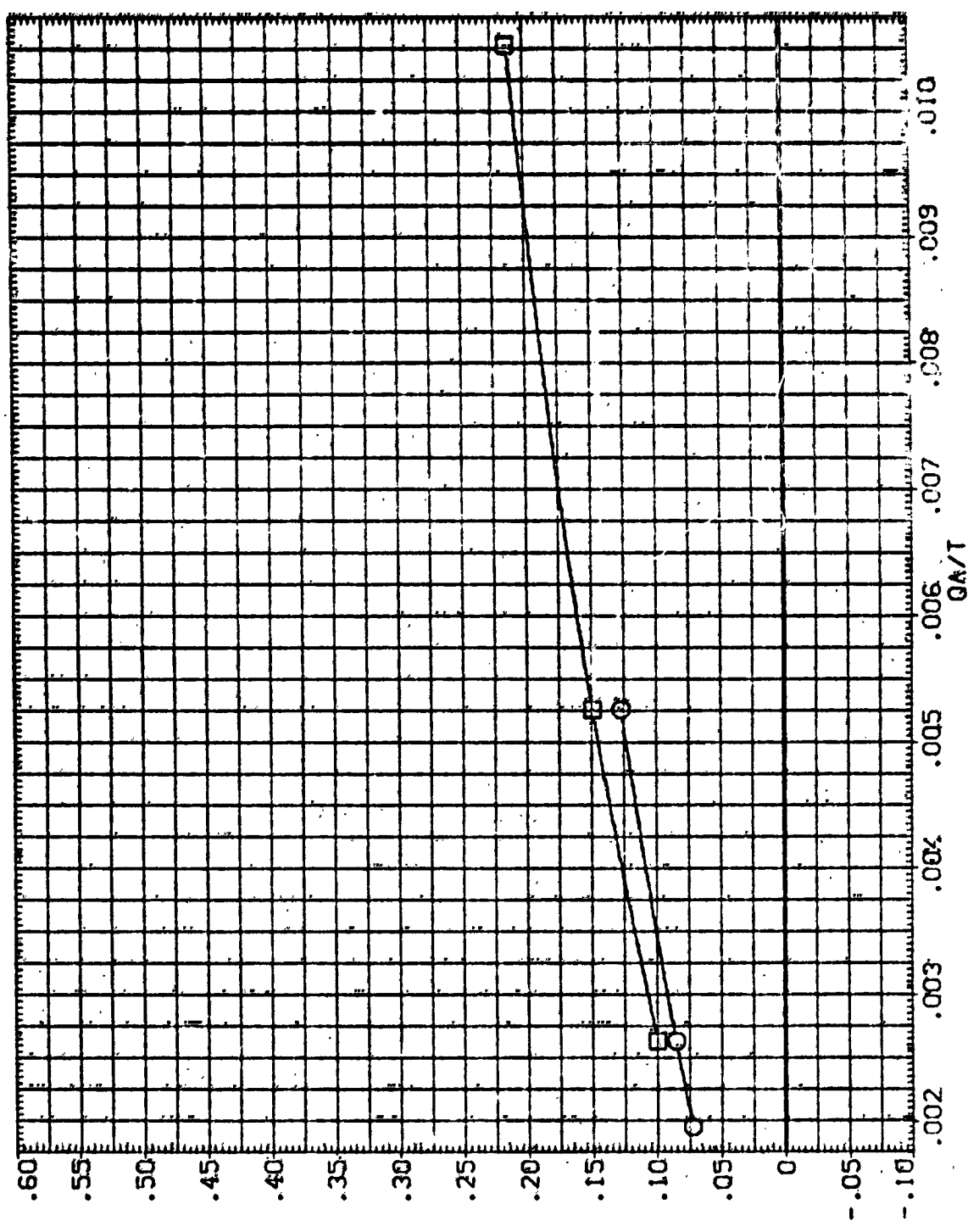


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51, N85

(K)ALPHA = 15.00

DATA SET SYMBOL: 01M51
 (SNA-04) LARC DEPT 118 (MA-22)
 (SNA-05) 01M51 LARC DEPT 118 (MA-22)

ELEVATION: .000
 NO. JET: 4.000
 REF. INFO: 2690.0000 SQ. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XPRP: 1076.7000 IN. X
 YPRP: .0000 IN. Y
 ZPRP: 375.0000 IN. Z
 SCALE: .0100

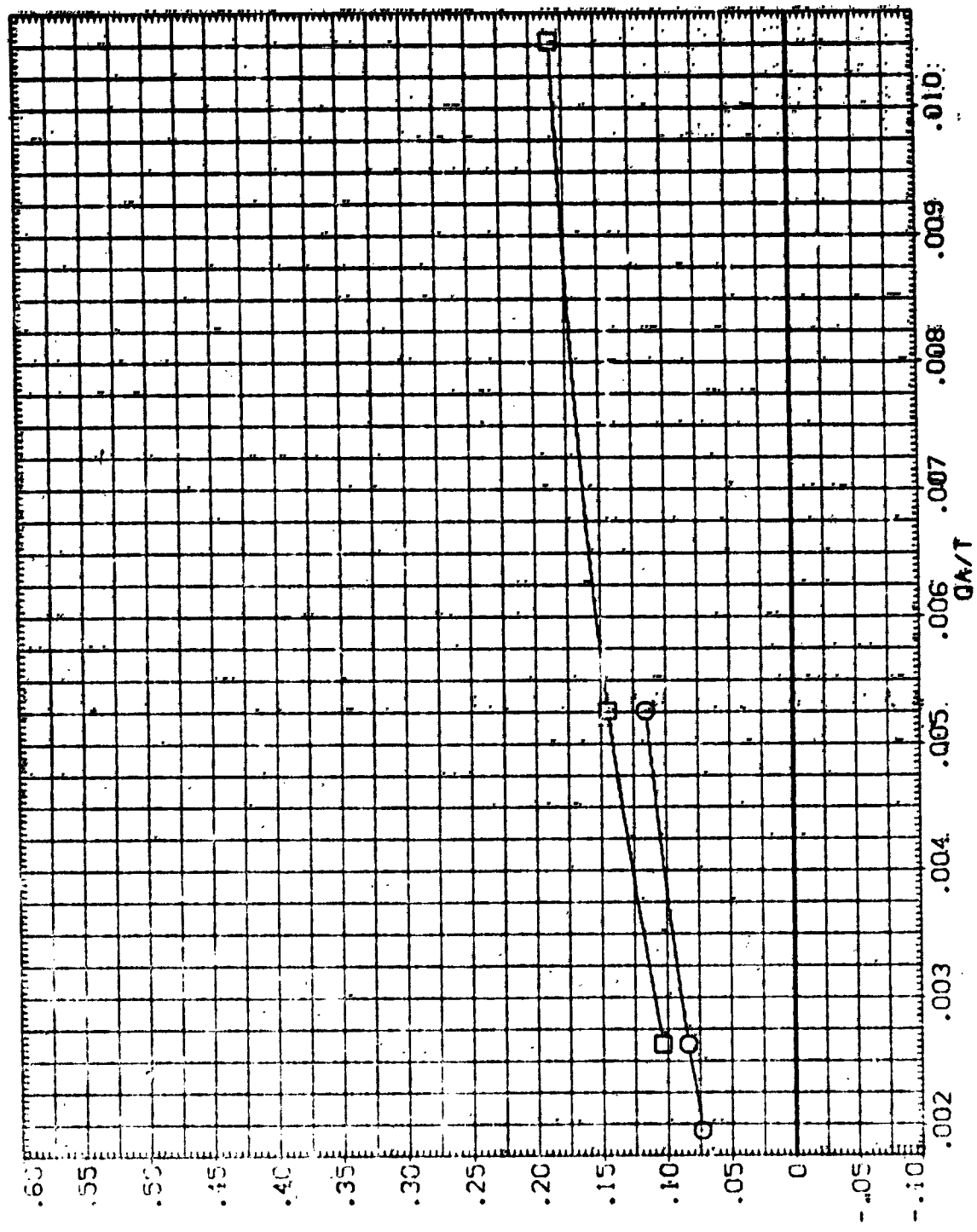


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N85

(CL) ALPHA = 20.00

DATA SET SYMBOL: Q1N51
 (SJA004)
 (SJA005)

CONFIGURATION DESCRIPTION:
 LARC CFHT 118 (MA-222)
 LARC CFHT 118 (MA-227)

ELEVATION: .000
 .000

NO. JET: 4.000
 2.000

BOFLAP: .000
 .000

BETA: .000
 .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6000 INCHES
 XREF: 1076.7000 IN. XB
 YREF: .0000 IN. YB
 ZREF: 375.0000 IN. ZB
 SCALE: .0100

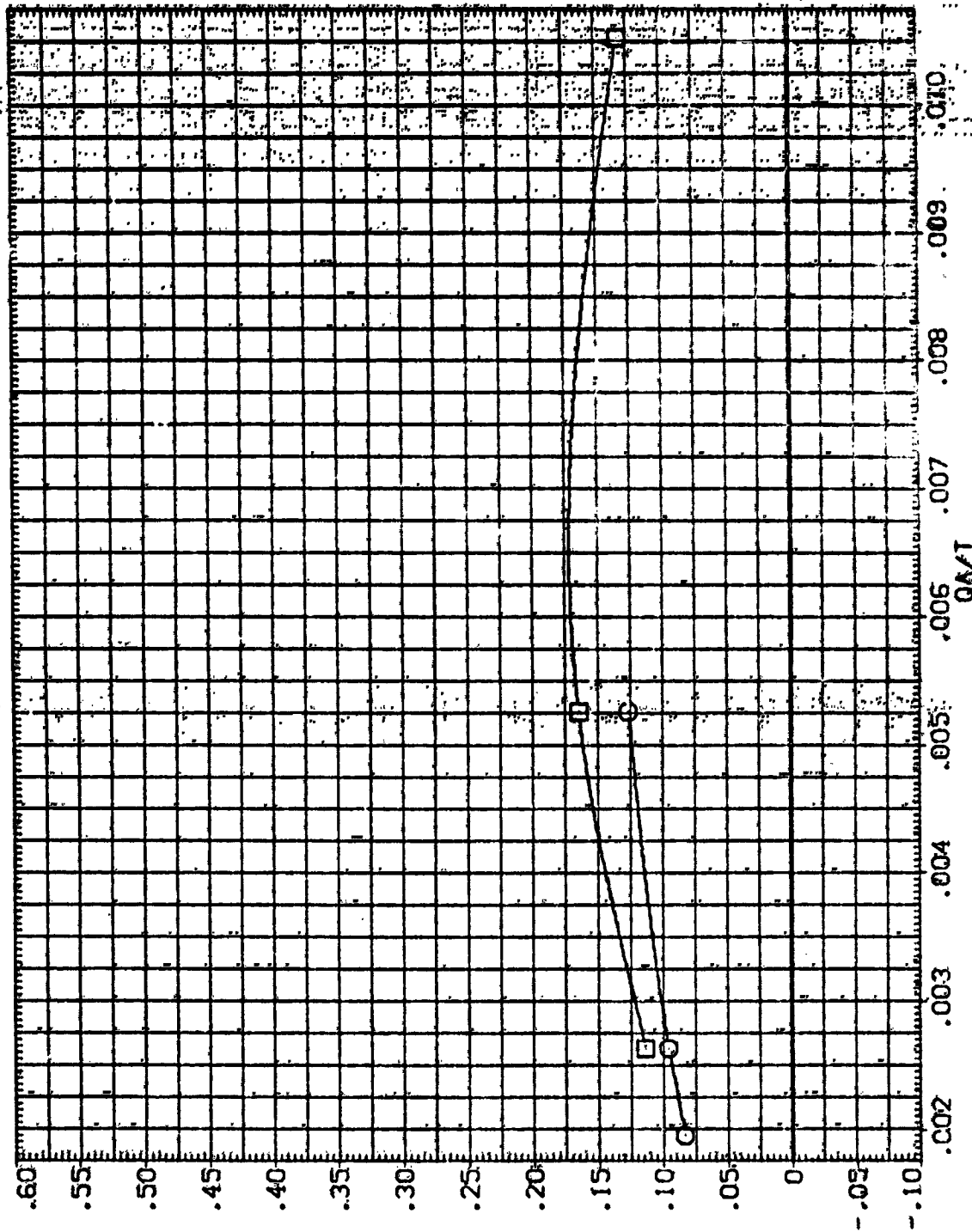


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N95

(MDALPHA = 25.00

1

REFERENCE INFORMATION

SRF	2630.0000	50.00
LA REF	474.8000	INCHES
BRF	936.6000	INCHES
TRP	1076.7000	IN
TRP	10000	IN
TRP	375.0000	IN
SCALE	1.0100	IN

ELEVON

NO. JET	4.000
BOFLAP	.000
BETA	.000

DATA SET SYMBOL

CONFIGURATION DESCRIPTION

(SJA004)	QINS	LARC CHT 118 (MA-22)
(SJA005)	QINS	LARC CHT 118 (MA-22)

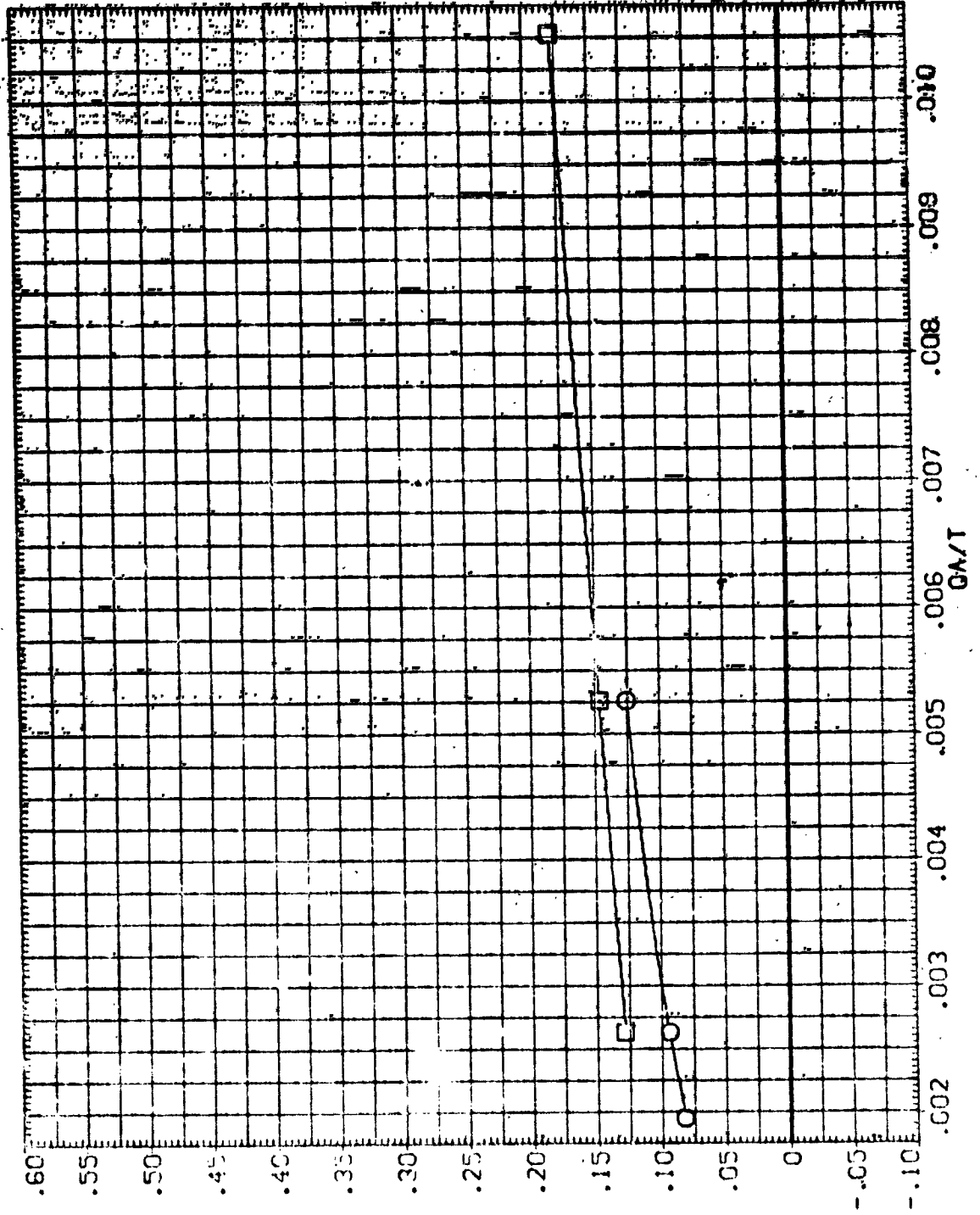


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51,N85

(N)ALPHA = 30.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SUM004) 8 Q1851 LARC CFHT 118 (MA-22)
 (SPAC005) 8 Q1865 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA
 .000 4.000 .000
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 50.71
 LREF 474.8000 INCHES
 BREF 565.6500 INCHES
 MREF 1026.7000 IN. X0
 YREF .0000 IN. Y0
 ZREF 375.0000 IN. Z0
 SCALE .0100

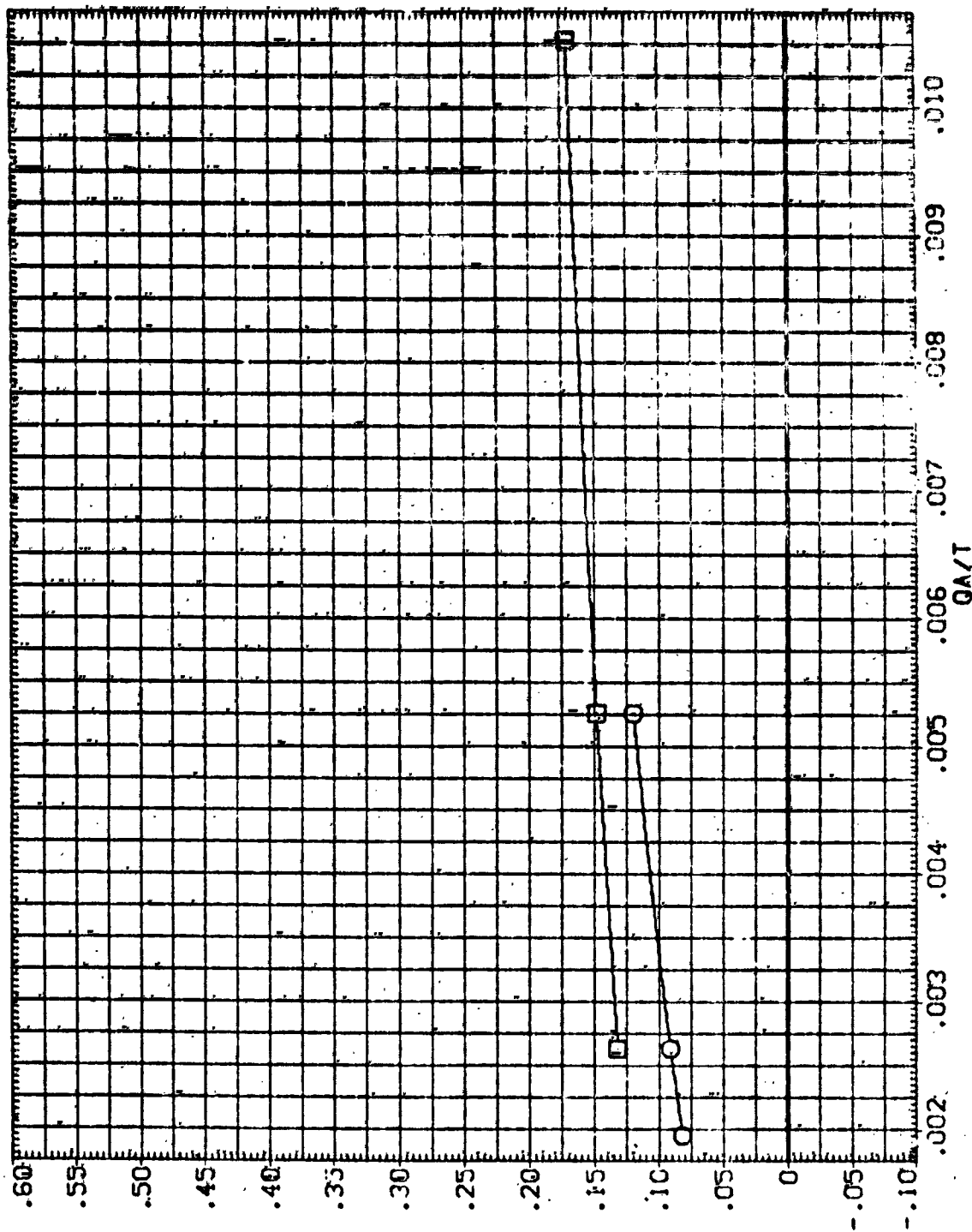


FIGURE 26. EFFECT OF MULTIPLE JET RCS FIRINGS, N51-N65

(Q1ALPHA = 35.00

DATA SET SYMBOL: 01N78, 01N52, 01N82
 CONFIGURATION DESCRIPTION: LARC CFMT 119 (MA-22), LARC CFMT 118 (MA-22), LARC CFMT 118 (MA-22)
 REFERENCE INFORMATION: SREF 2590.0000 SO.FT., LREF 474.8000 INCHES, XREF 936.6800 INCHES, YREF 1076.7000 IN. FOR ZREF 375.0000 IN. FOR SCALE .0100

ELEVON: .000, .000, .000
 NO. JET: 1.000, 2.000, 3.000
 BDFLAP: .000, .000, .000
 BETA: .000, .000, .000

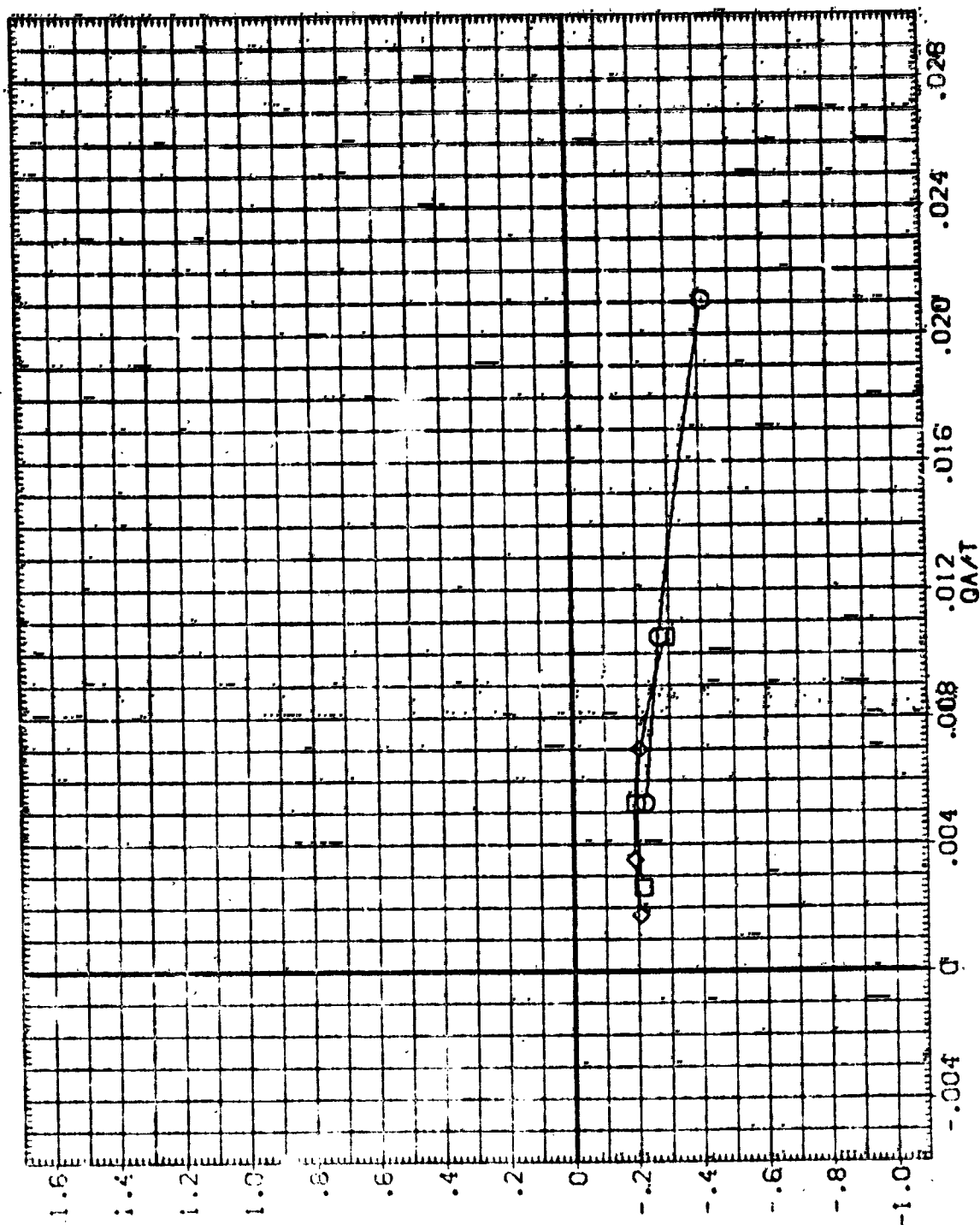


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(A) ALPHA = -8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (S1A006) 01N78 LARC CFHT 118 (MA-22)
 (S1A007) 01N52 LARC CFHT 118 (MA-22)
 (S1A008) 01N82 LARC CFHT 118 (MA-22)

ELEVON NG JEF BOFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 .000 2690.0000 50.074
 .000 2.000 .000 .000 474.0000 1.0000
 .000 3.000 .000 .000 936.0000 1.0000
 1076.7000 1.0000 1.0000 1.0000
 17200 2000 375.0000 1.0000
 2000 1.0000 1.0000
 SCALE .0000

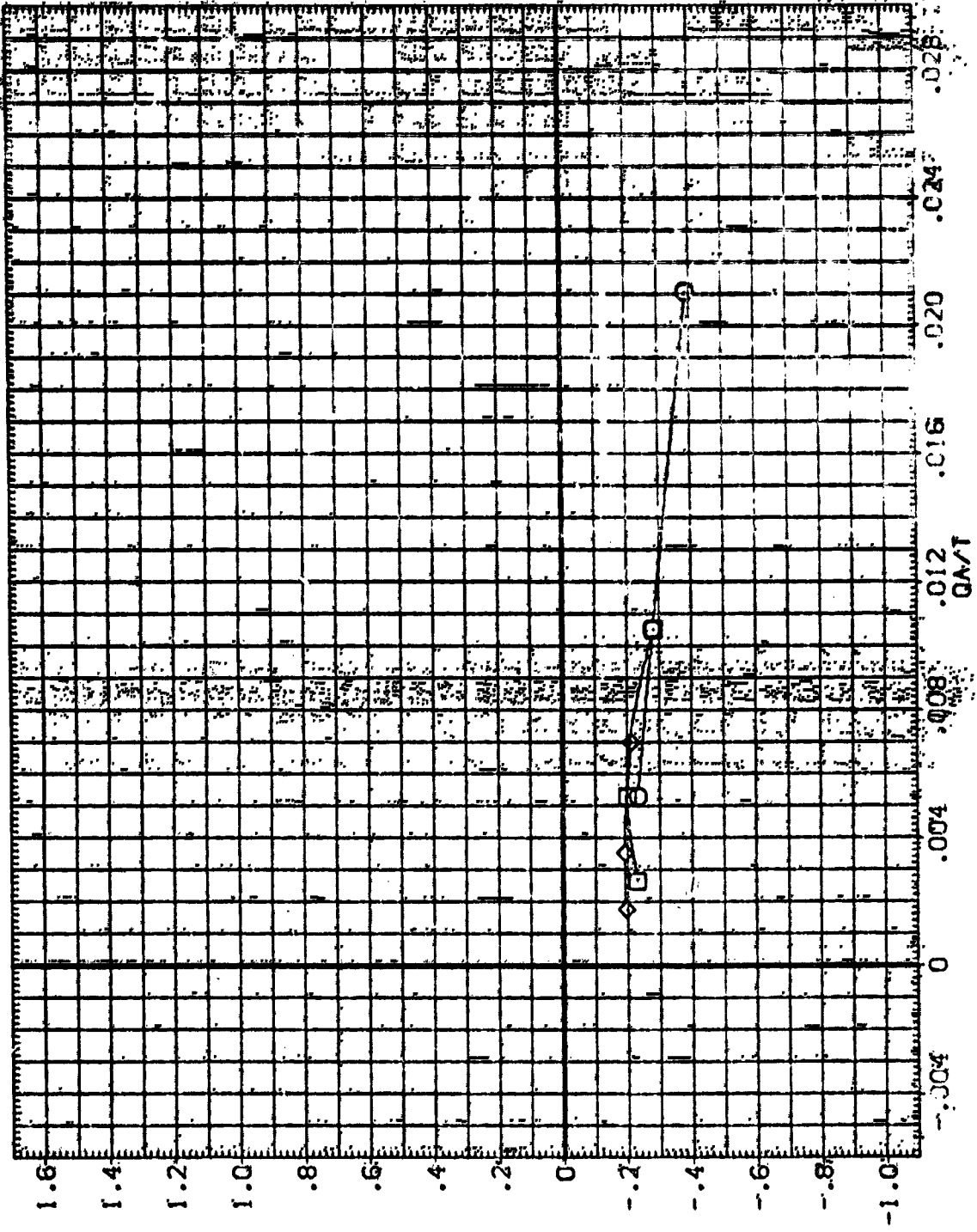


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, 178, NS2, N42
 (B) ALPHA = -6.00

DATE SET SYMBOL
(SJA005)
(SJA007)
(SJA008)

CONFIGURATION DESCRIPTION
01N78 LARC CFHT 118 (MA-22)
01N52 LARC CFHT 118 (MA-22)
01N82 LARC CFHT 118 (MA-22)

ELEVON
.000
.000
.000

NO. JET
1.000
2.000
3.000

BOFLAP
.000
.000
.000

BETA
.000
.000
.000

REFERENCE INFORMATION
SREF 2690.0000 SO. FT.
LREF 474.8070 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. NO
YMRP .0800 IN. YD
ZMRP 375.0000 IN. ZD
SCALE .0100

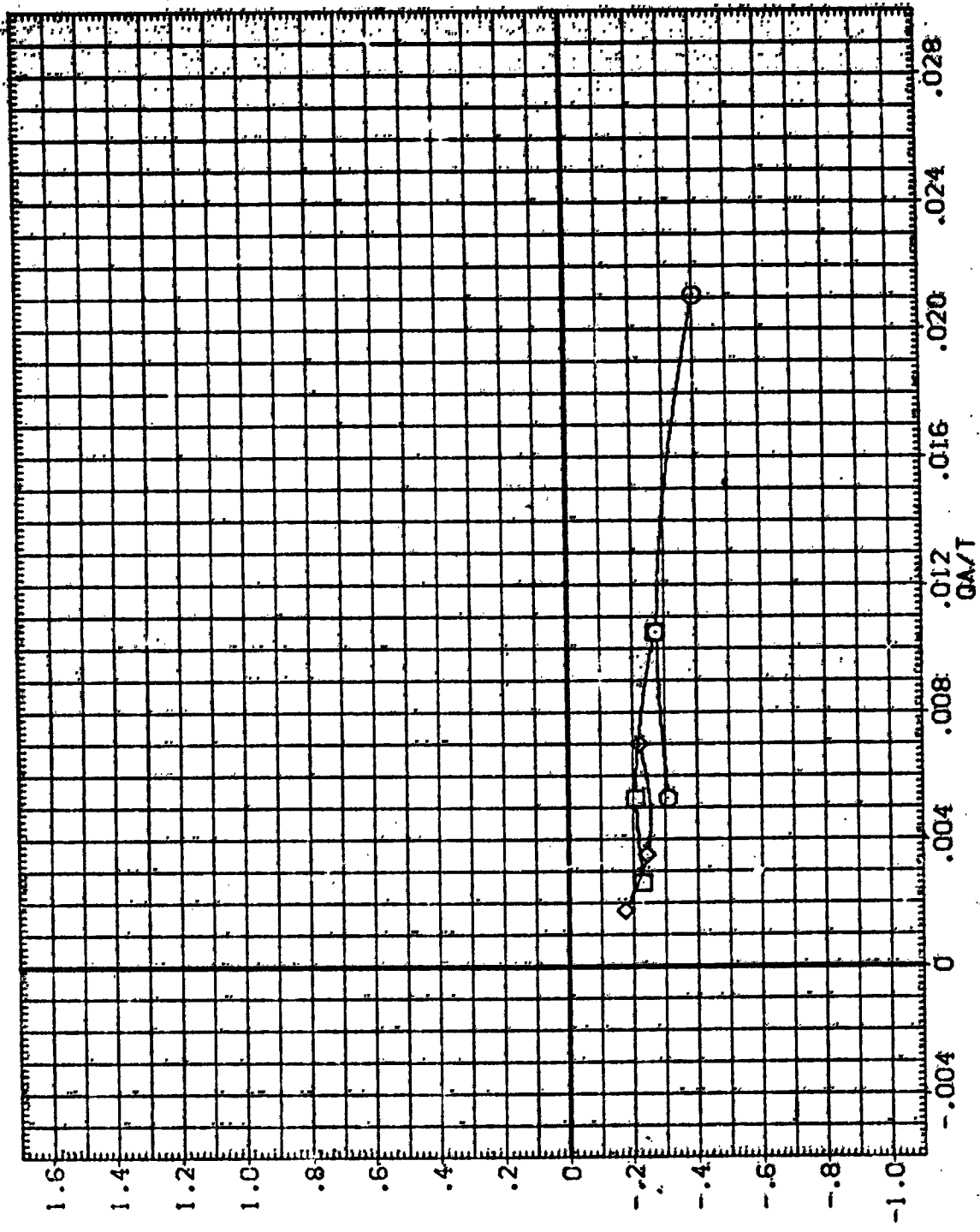


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(C) ALPHA = -4.00

ELEVON	NO-JET	BOFLAP	BETA	REFERENCE INFORMATION	SO.FI.
.000	1.000	.000	.000	SREF	2650.0000
.000	2.000	.000	.000	LREF	474.8000
.000	3.000	.000	.000	HPREF	976.5900
.000		.000	.000	YHP	1076.7000
				YHP	.8000
				ZHP	375.0000
				SCALE	.0100

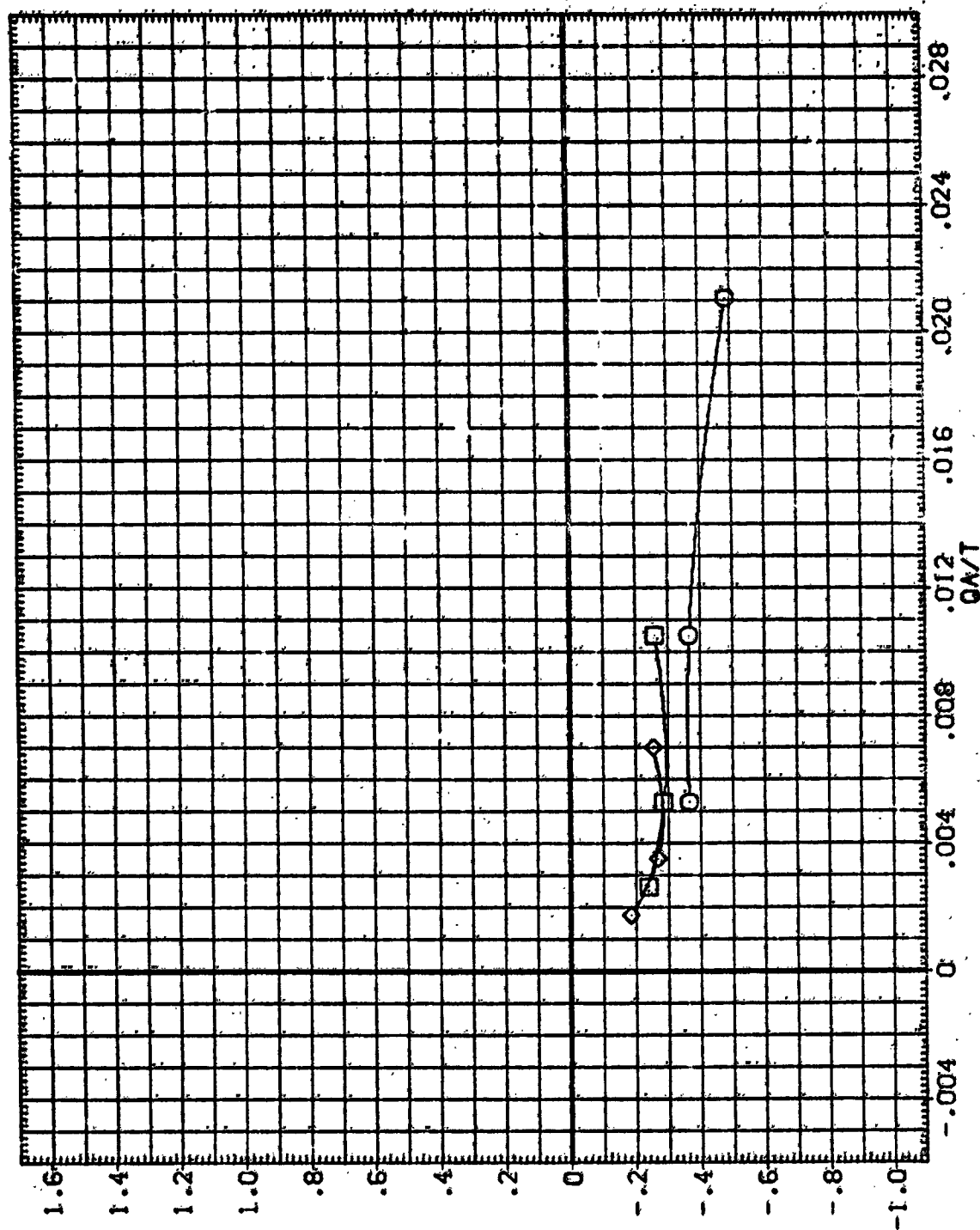


FIGURE 27. EFFECT OF MULTIPLE JET RES FIRINGS. N78, N52, N82

$$(D)ALPHA = -2.00$$

DATA SET SYMBOL
(SJA006)
(SJA007)
(SJA008)

CONFIGURATION DESCRIPTION
01N78 LARC CPHT 118 (MA-22)
01N52 LARC CPHT 118 (MA-22)
01N82 LARC CPHT 118 (MA-22)

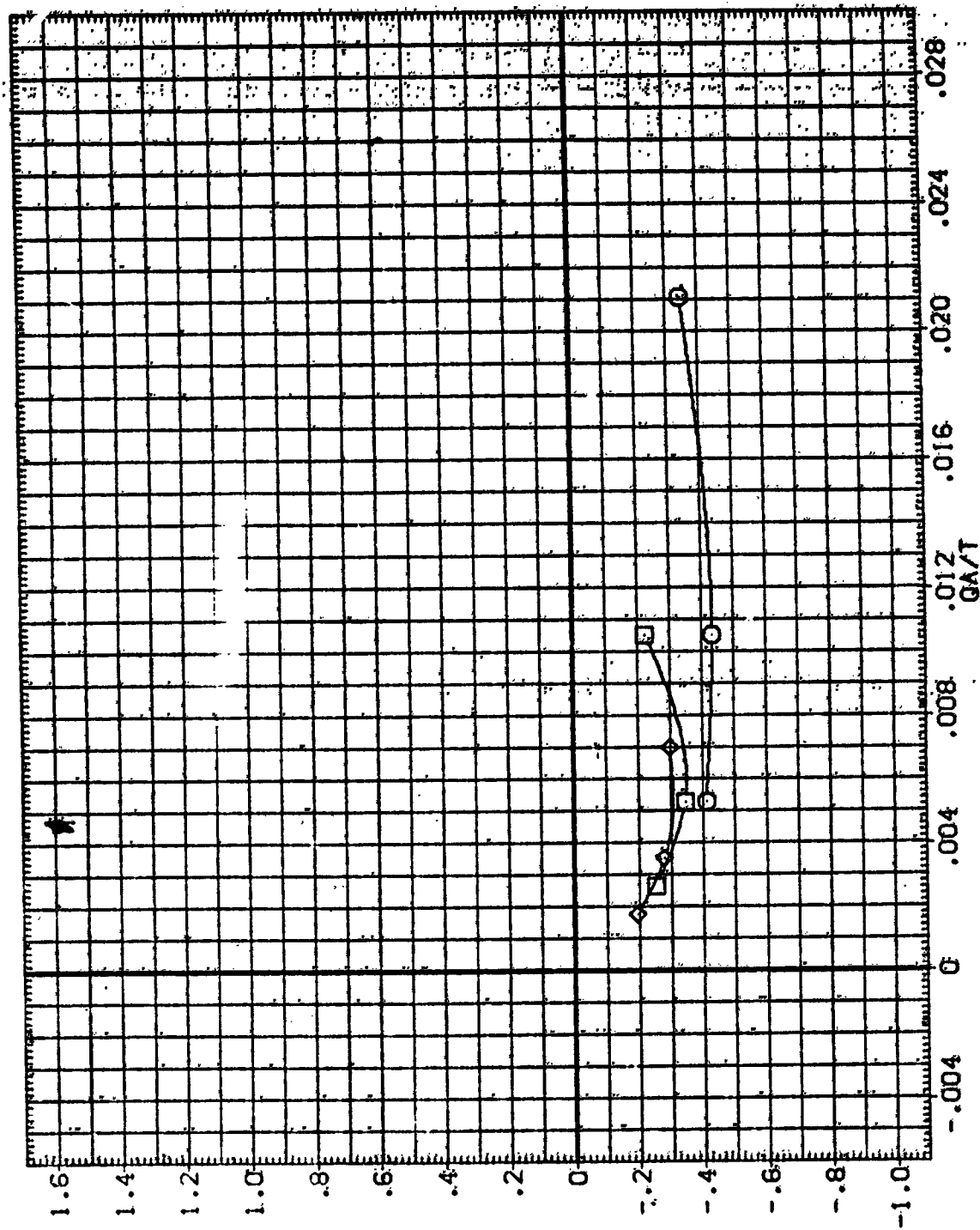
ELEVON: .000
.000
.000

NO-JET 1.000
2.000
3.000

BOFLAP .030
.000
.000

BETA .000
.000
.000

REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
LREF 474.8000 INCHES
BREF 935.6800 INCHES
XMRP 1076.7000 IN. 10
YMRP 0000 IN. 10
ZMRP 375.0000 IN. 20
SCALE .0100



RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N NF)

FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(E)ALPHA = .00

ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION			
.000	1.000	.000	.000	SREF	2650	0000	50. FT.
.000	2.000	.000	.000	LREF	474	8000	INCHES
.000	3.000	.000	.000	BREF	936	6800	INCHES
.000				XREF	1076	7000	IN. X0
				YREF		0000	IN. Y0
				ZREF	375	0000	IN. Z0
				SCALE		.0100	

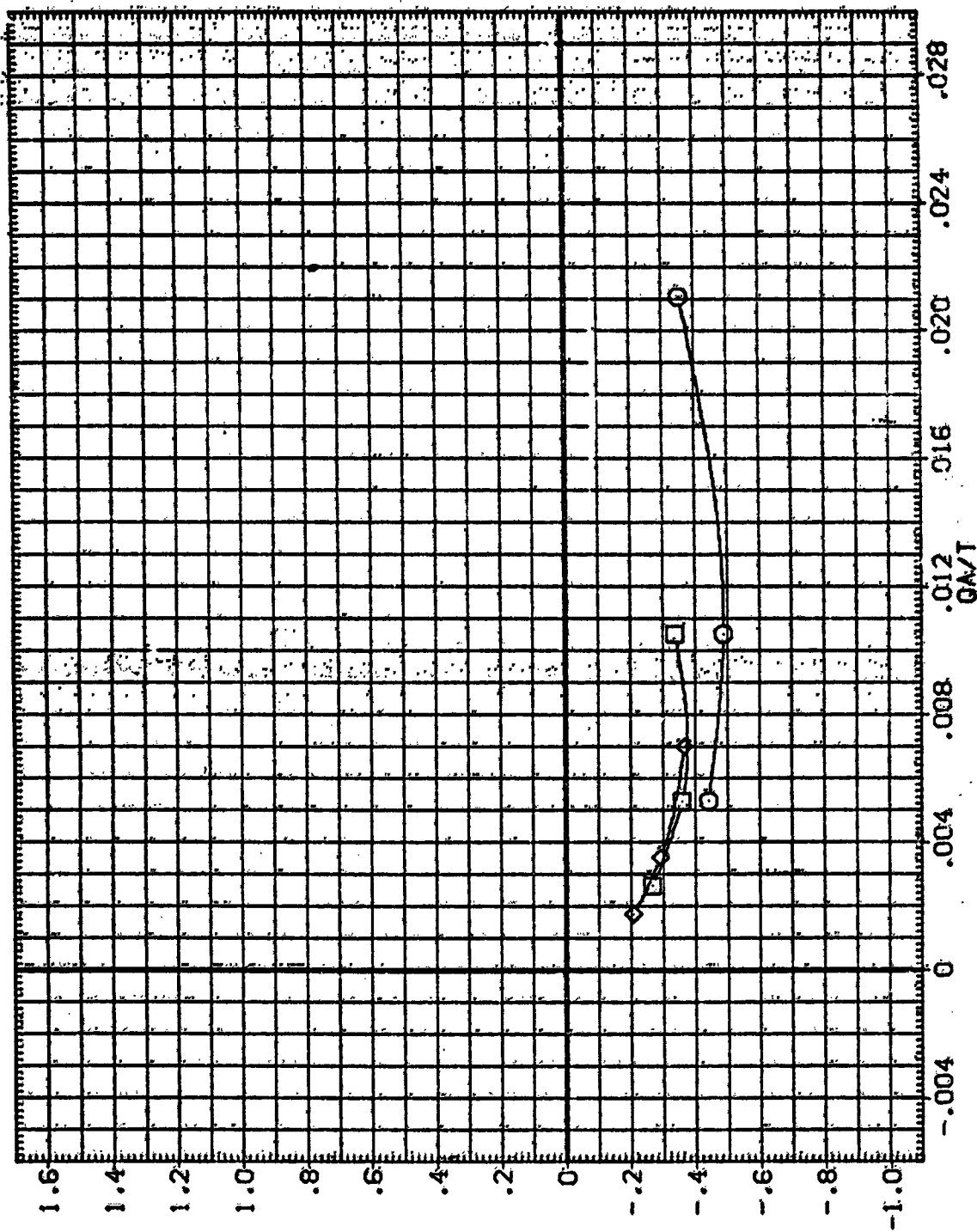


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82

$$(F)_{\text{ALPHA}} = 2.00$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(SJAC05) 01N78 LARC CPHT 118 (MA-22)

(SJAC07) 01N52 LARC CPHT 118 (MA-22)

(SJAC08) 01N62 LARC CPHT 118 (MA-22)

ELEVON NG-JET BOFLAP BETA

.000 1.000 .000

.000 2.000 .000

.000 3.000 .000

REFERENCE INFORMATION

SREF 2690.0000 INCHES

LREF 474.8000 INCHES

BREF 936.6800 INCHES

XMRP 1876.2000 IN. 10

YMRP .0000 IN. 10

ZMRP 375.0000 IN. 20

SCALE .0100

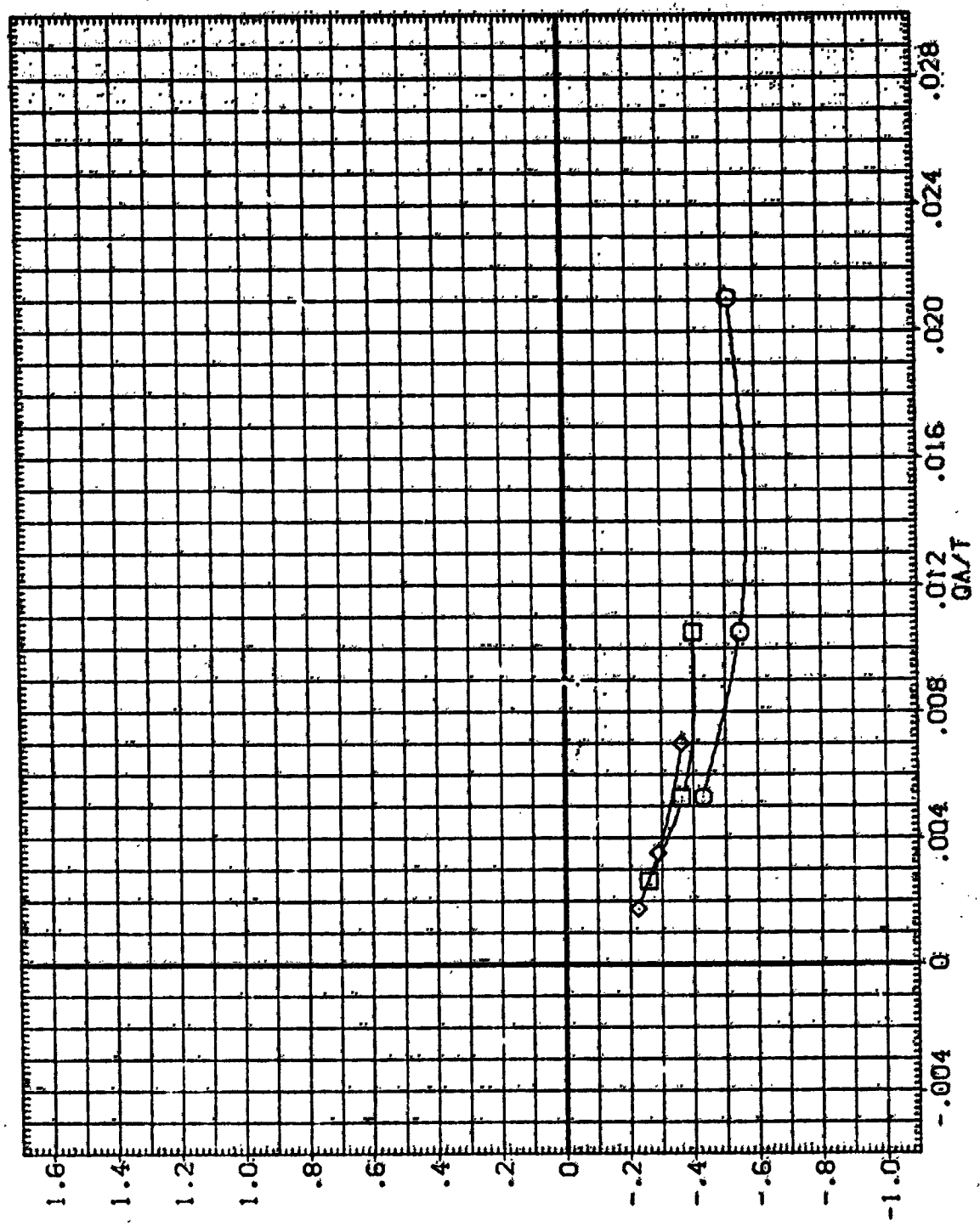


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78.N52.N82

(G)ALPHA = 4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) 01N78 LARC CFHT 118 (MA-22)
 (SJA007) 01N52 LARC CFHT 118 (MA-22)
 (SJA008) 01N82 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2690.0000 SO. FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 BREF 936.6000 INCHES
 .000 .000 .000 XRRP 1075.7000 IN. X0
 .000 .000 .000 YRRP .0000 IN. Y0
 .000 .000 .000 ZRRP 375.0000 IN. Z0
 SCALE .0100

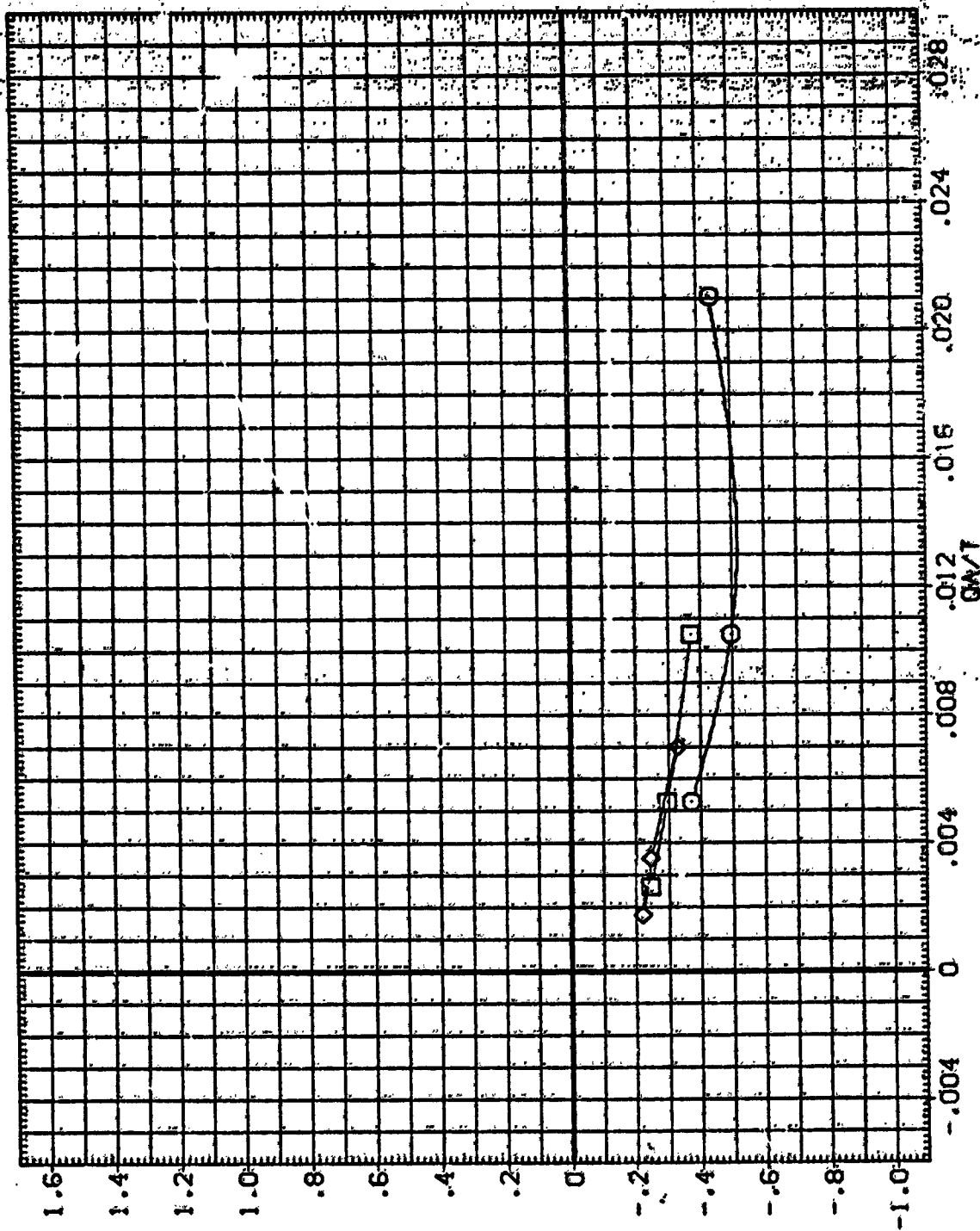


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(H)ALPHA = 6.00

DATA SET SYMBOL
(SJA006)
(SJA007)
(SJA008)

CONFIGURATION DESCRIPTION
LARC CENT 118 (NA-22)
LARC CENT 118 (NA-22)
LARC CENT 118 (NA-22)

ELEVATION
.000
.000
.000

NO. JET
1.000
2.000
3.000

BETA
.000
.000
.000

BOFLAP
.000
.000
.000

REFERENCE INFORMATION
SREF 2690.0000 50.00
LREF 474.8000 1.00
BREF 936.8000 1.00
XREF 1076.7000 1.00
YREF .0000 1.00
ZREF 375.0000 1.00
SCALE .0100

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

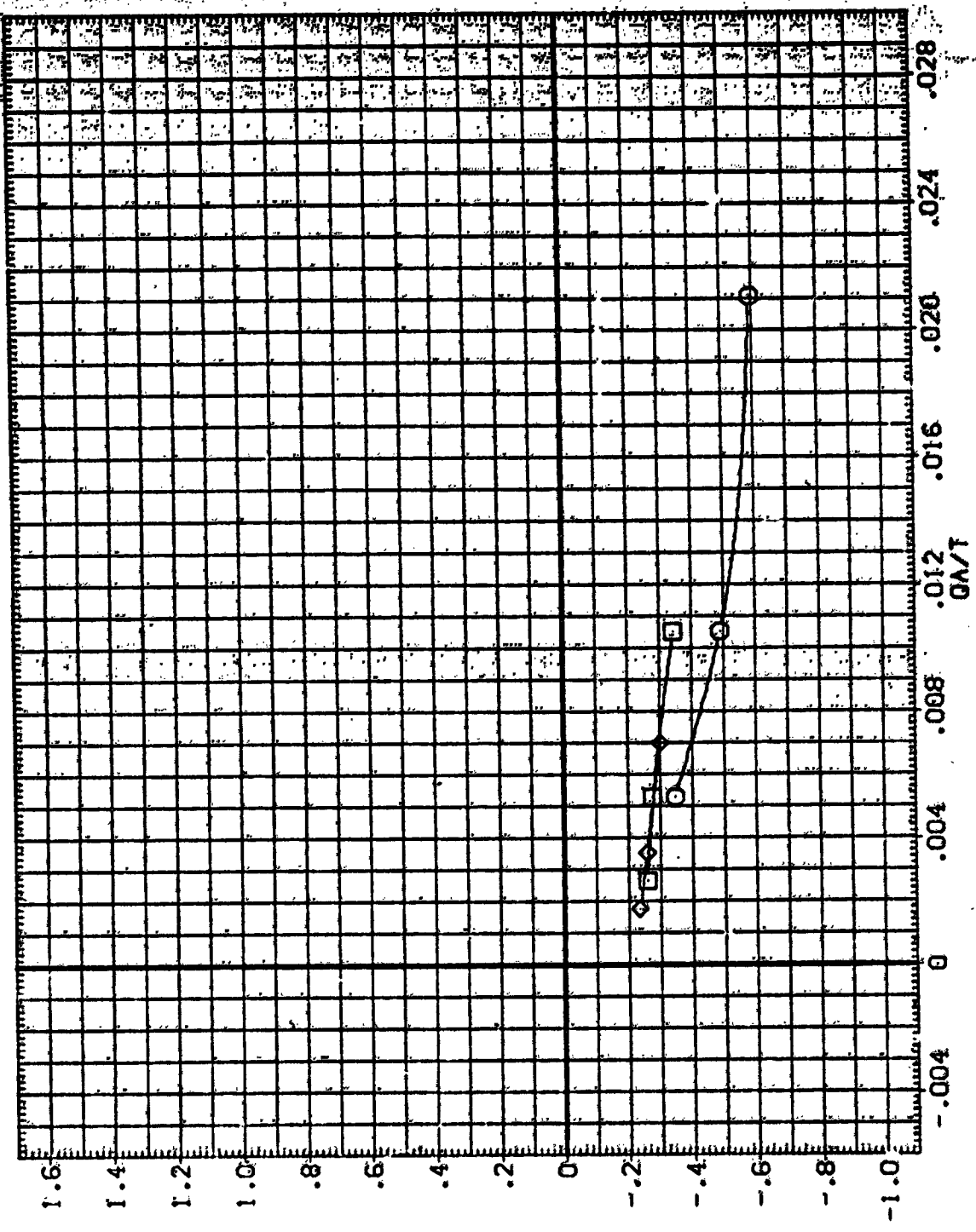


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(I) ALPHA = 8.00

ELEVON	NO. JET	BOFLAP	BETA	REF	INCHES	IN. FT.
.000	1.000	.000	SREF	2650.0000	INCHES	
.000	2.000	.000	LREF	474.8000	INCHES	
.000	3.000	.000	BREF	936.6800	INCHES	
			XREF	1076.7000	IN. TO	
			YREF	0.0000	IN. TO	
			ZREF	375.0000	IN. TO	
			SCALE	.0100		

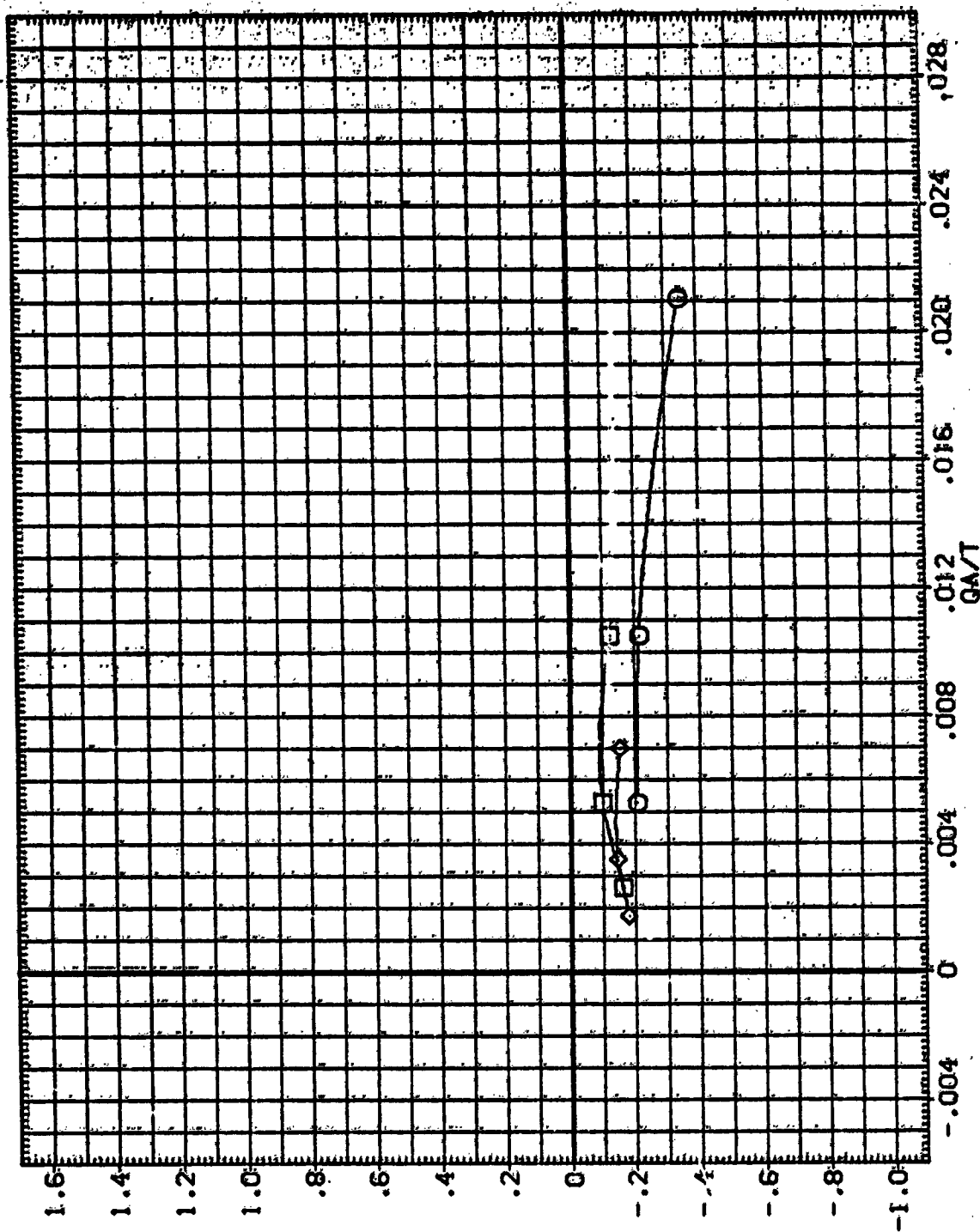
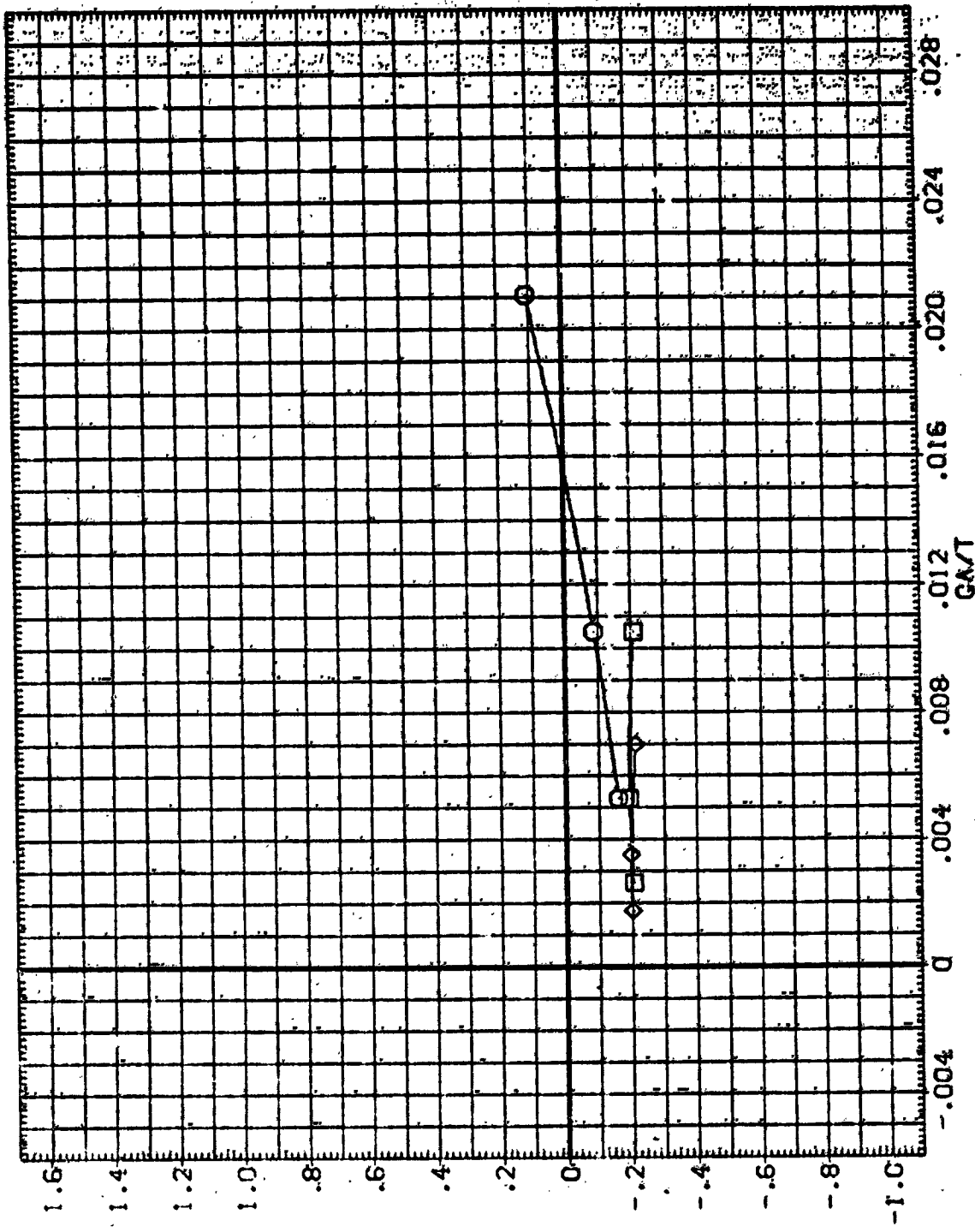


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78,N52,N82

CJ2ALPHA = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	NO. JET	BDFLAP	BETA	SREF	SC.FT.
(SJA005)	LARC CFHT 118 (MA-22)	.080	1.000	.080	.000	474.8000	INCHES
(SJA007)	LARC CFHT 118 (MA-22)	.080	2.800	.080	.000	936.5800	INCHES
(SJA008)	LARC CFHT 118 (MA-22)	.080	3.000	.080	.000	1076.7000	IN. TO
						395.0000	IN. TO
						.0100	SCALE



RCS JET AMPLIFICATION FACTOR - NORMAL FORCE. N(NF)

FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78.N52.N82

(K)ALPHA = 15.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA005)	Q1N78 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	SREF 2696.0000 INCHES
(SJA007)	Q1N52 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA008)	Q1N82 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6900 INCHES
						XREF 1026.7000 IN. X0
						YREF .0000 IN. Y0
						ZREF 375.0000 IN. Z0
						SCALE .0100

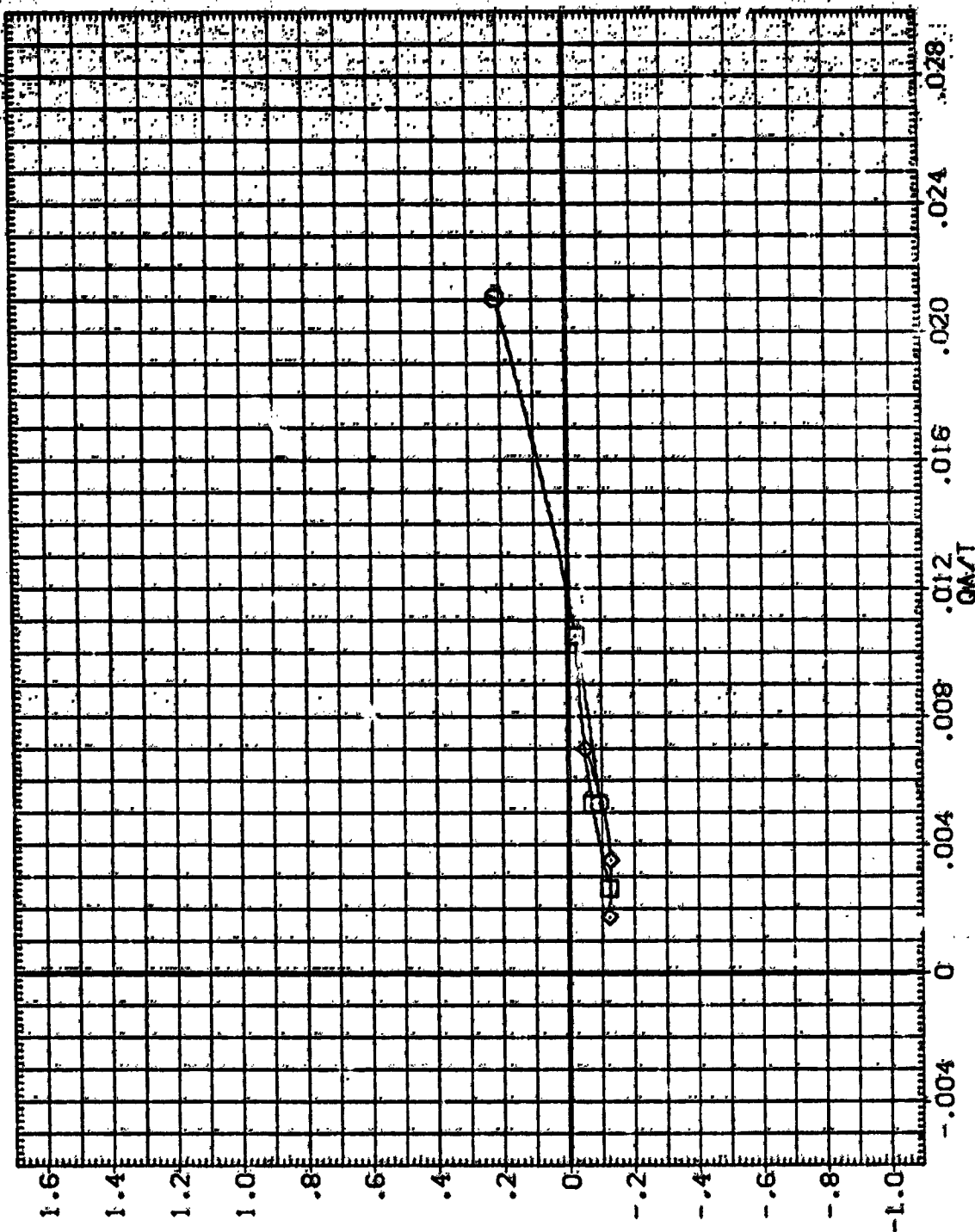


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82

(L1ALPHA = 20.00

DATA SET SYMBOL
(SJA006)
(SJA007)
(SJA008)

CONFIGURATION DESCRIPTION
LARC CHT 118 (MA-22)
LARC CHT 118 (MA-22)
LARC CHT 118 (MA-22)

ELEVON
.000
.000
.000

NO. JET
1.000
2.000
3.000

BOFLAP
.000
.000
.000

BETA
.000
.000
.000

REFERENCE INFORMATION
SREF 2890.0000 50 FT.
LREF 474.8000 INCHES
BREF 536.6000 INCHES
XREF 1076.7000 IN. Y0
YREF 375.0000 IN. Y0
SCALE .0100

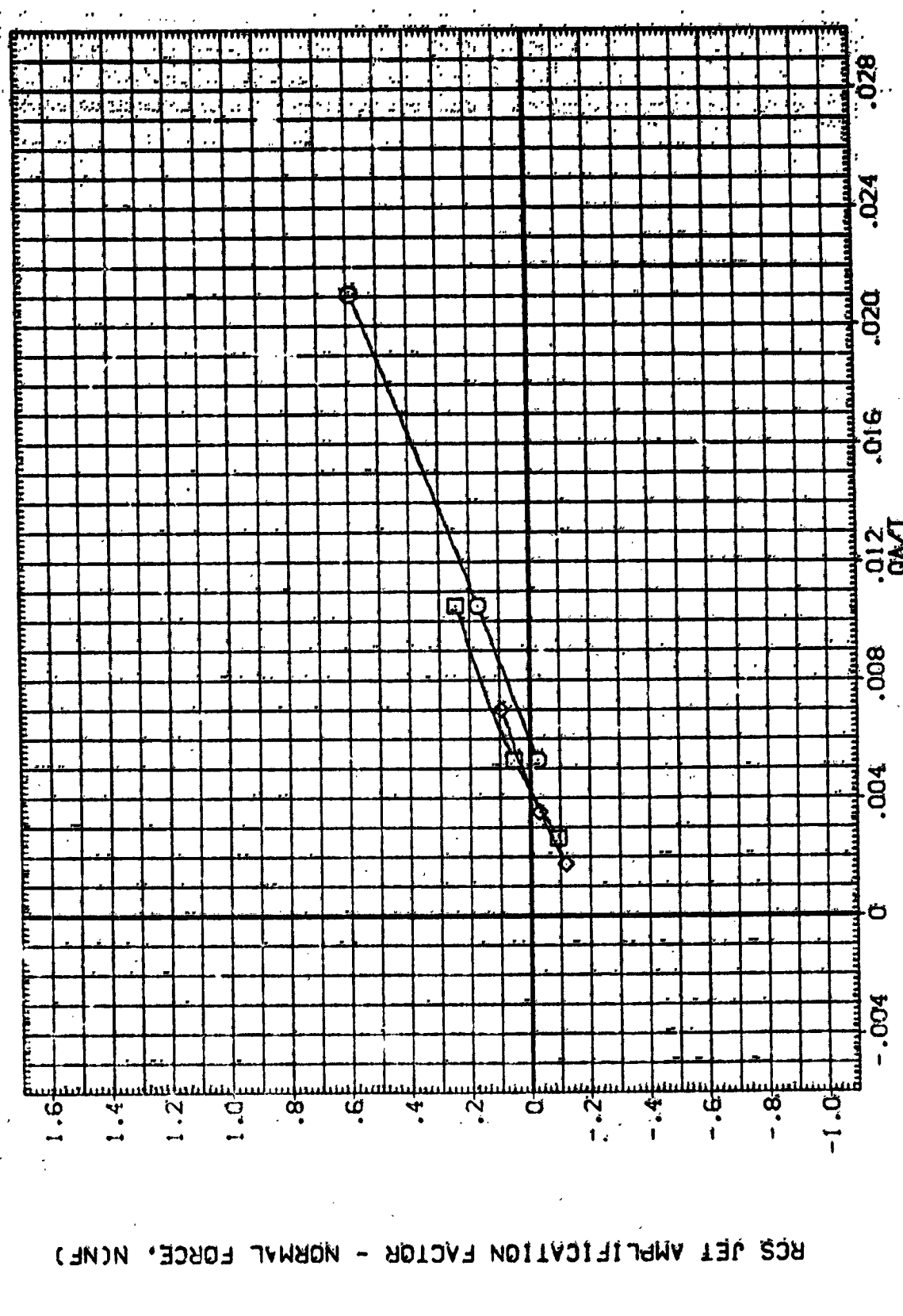


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82

(M)ALPHA = 25.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA006)	LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	SREF 2630.0000 INCHES
(SJA007)	LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA008)	LARC CFHT 118 (MA-22)	.000	3.000	.080	.000	BREF 936.6000 INCHES
						XREF 1076.7000 INCHES
						YREF .0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0100

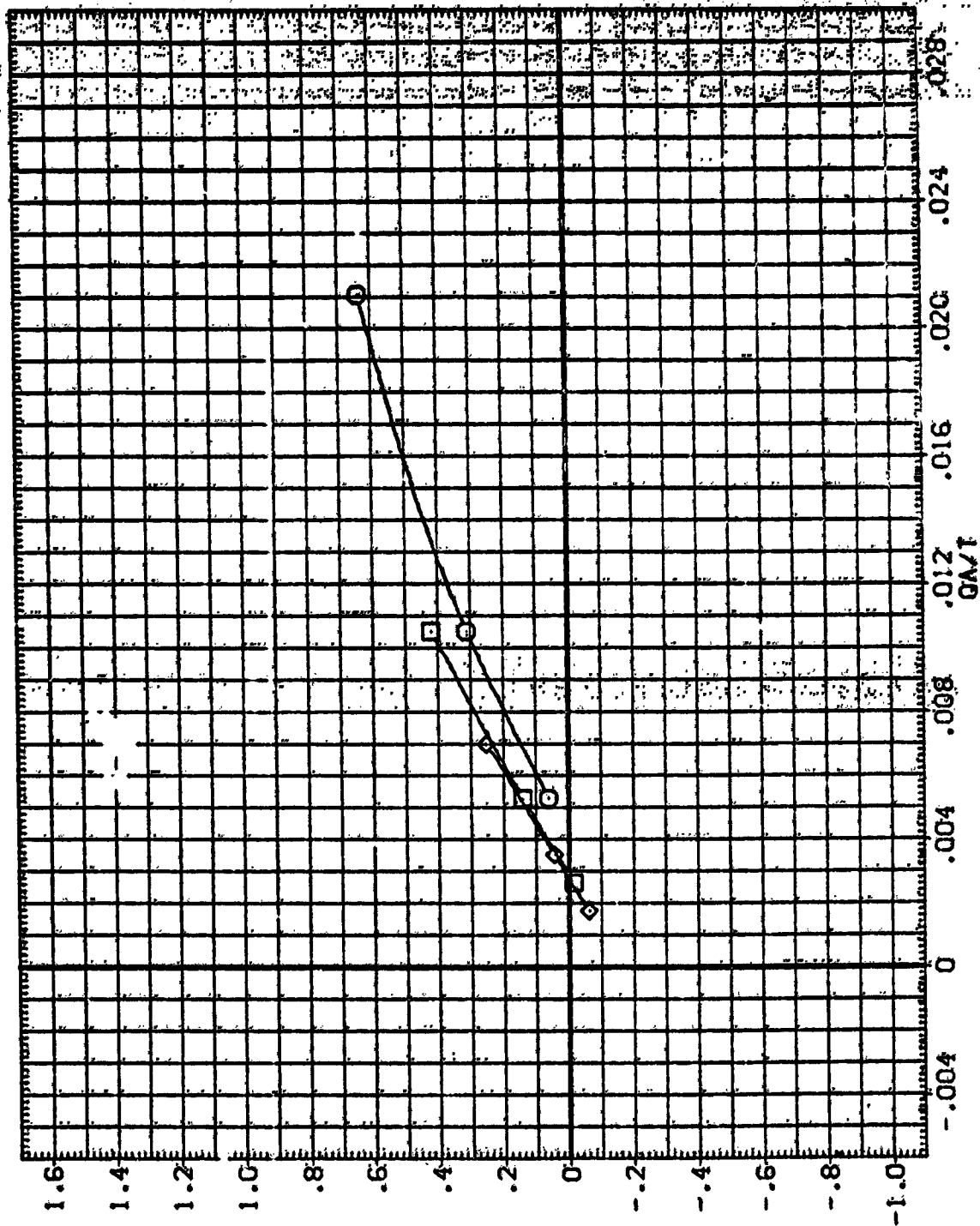


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N73, N52, N82

(N)ALPHA = 30.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA005)	01:078 LARC CFHT 118 (MA-223)	.000	1.000	.000	.000	SREF 2690.0000 50 FT
(SJA007)	01:052 LARC CFHT 118 (MA-223)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA008)	01:082 LARC CFHT 118 (MA-223)	.000	3.000	.000	.000	BREF 936.6800 INCHES
						YREF 1076.7000 IN. YD
						ZREF .0000 IN. YD
						SCALE 375.0000 IN. ZD

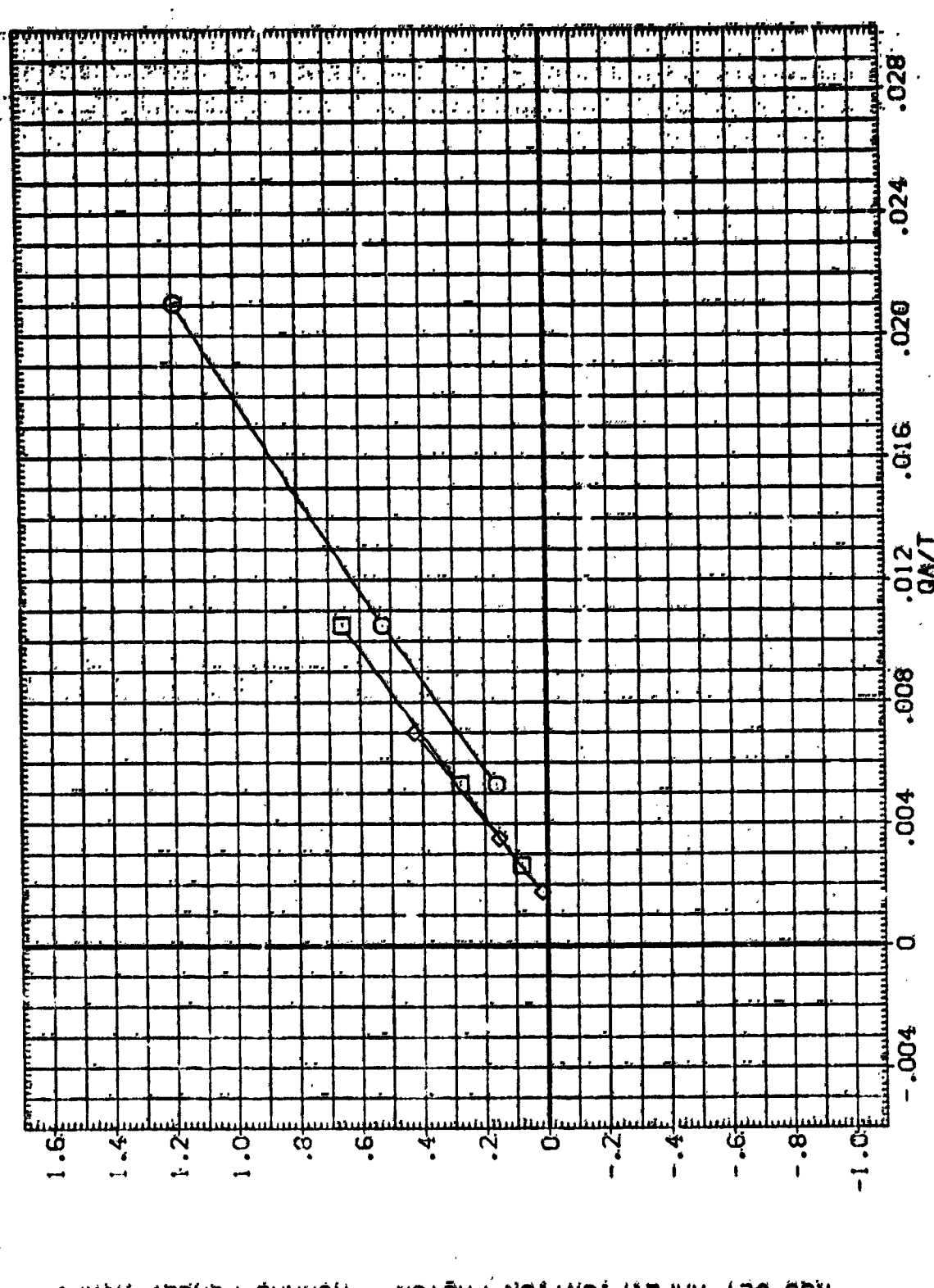


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78-N52-N82

(C) ALPHA = 35.00

DATA SET SYMBOL
(SJA006)
(SJA007)
(SJA008)

CONFIGURATION DESCRIPTION
QIN28 LARC CFHT 118 (MA-22)
QIN52 LARC CFHT 118 (MA-22)
QIN82 LARC CFHT 118 (MA-22)

ELEVON .000
NO. JET 1.000
BDFLAP .000
BETA .000
REFERENCE INFORMATION
SREF 2890.0000 INCHES
LREF 474.8000 INCHES
BREF 936.5800 INCHES
XMRP 1076.7000 IN. 10
YMRP .0000 IN. 20
ZMRP 375.0000 IN. 20
SCALE .0100

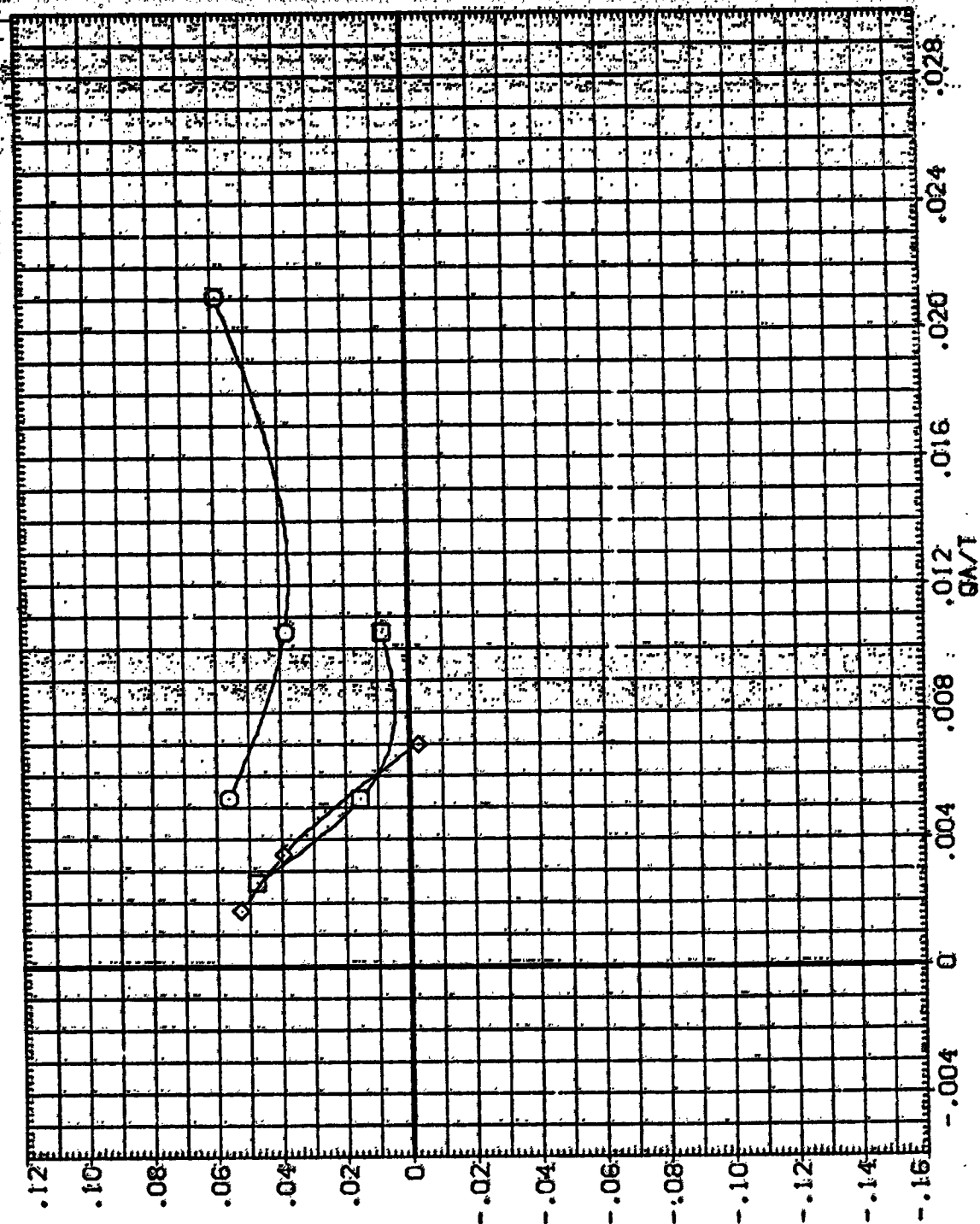


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78.N52.N82

CAJALPHA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BBFLAP	BETA	REFERENCE INFORMATION
(SJA006)	01M78 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	SREF 2650.0000 SO.FT.
(SJA007)	01M52 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA008)	01M82 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6800 INCHES
						XREF 1076.7000 IN. X0
						YREF 375.0000 IN. Y0
						ZREF 0.0000 IN. Z0
						SCALE .0100

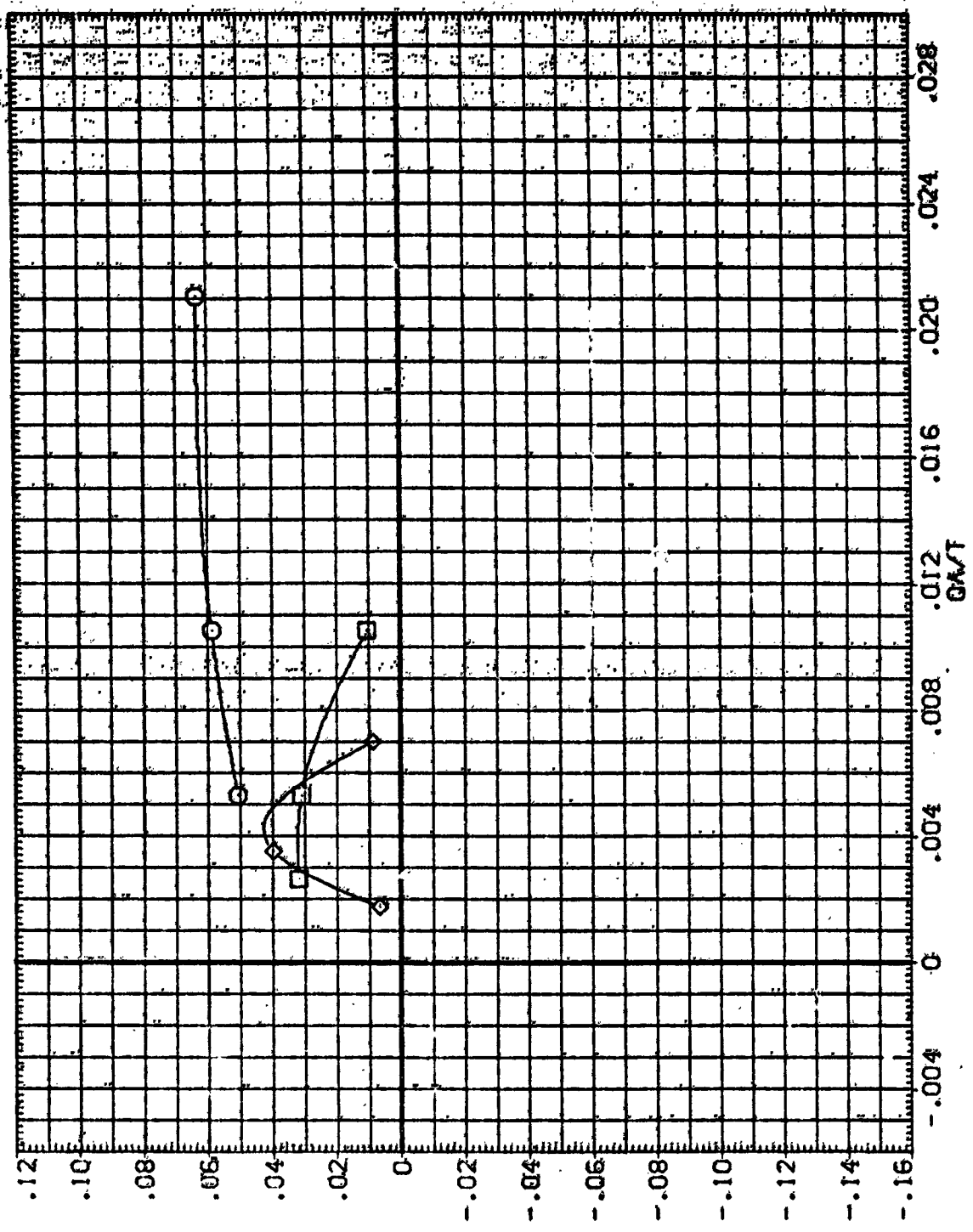


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(B) ALPHA = -6.00

ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION	SO. FT. INCHES
.000	1.000	.000	SREF	2650.0000	INCHES
.000	1.000	.000	LREF	474.8800	INCHES
.000	3.600	.000	BREF	936.6800	IN. NO
.000	3.600	.000	XREF	1076.7000	IN. VO
			YREF	0.000	IN. ZO
			ZREF	375.0000	IN. ZO
			SCALE	.0100	

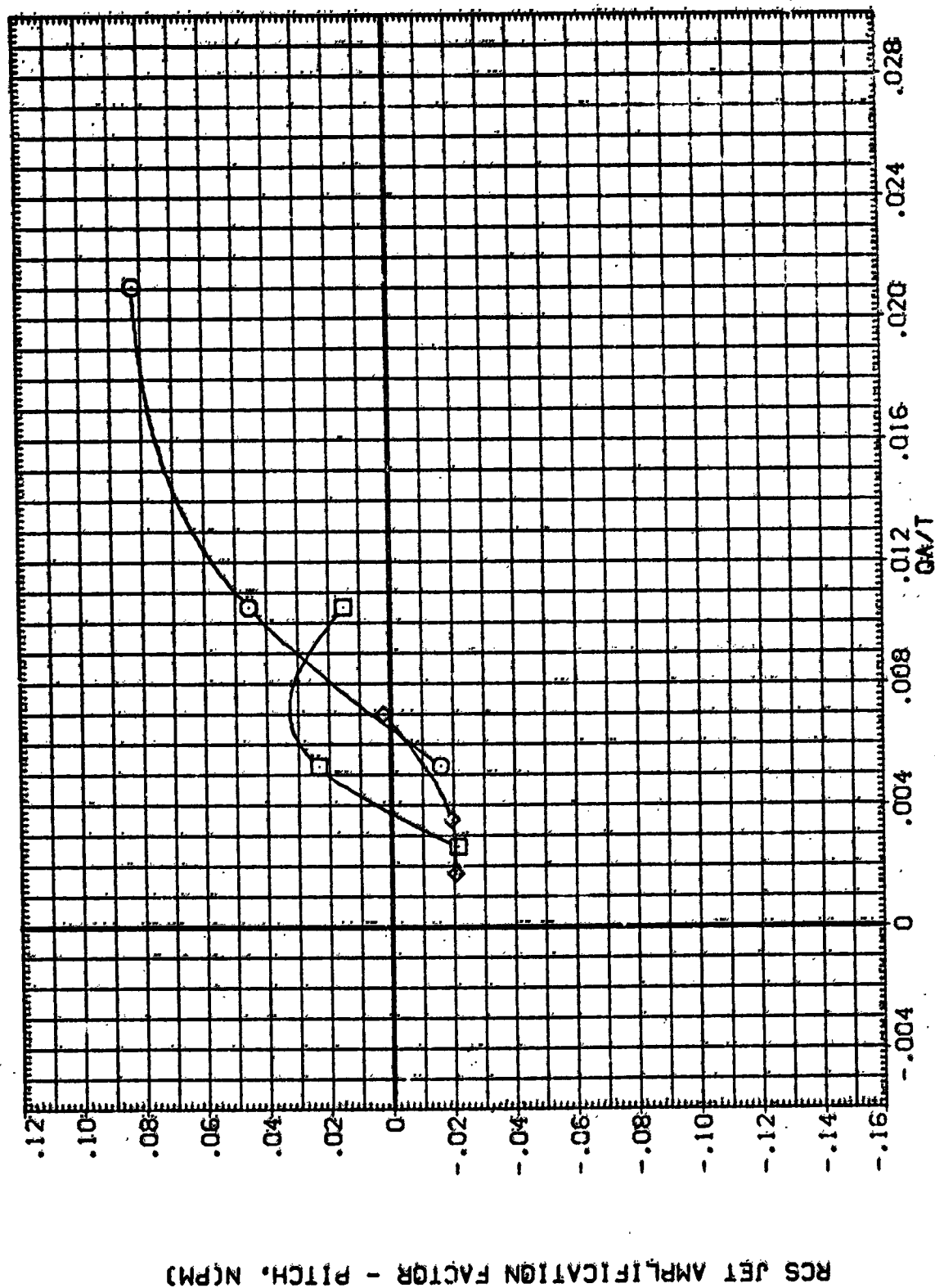


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52, N82

CCALPHA = -4.00

DATA SET SYMBOL: (SJA006)
 CONFIGURATION DESCRIPTION: LARC CFHT 118 (MA-22)
 (SJA007) LARC CFHT 118 (MA-22)
 (SJA008) LARC CFHT 118 (MA-22)

ELEVON: .000
 NO. JET: 1.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BRREF: 936.6800 INCHES
 YMRP: 1076.7000 IN. YD
 ZMRP: 375.0000 IN. YD
 SCALE: .0100

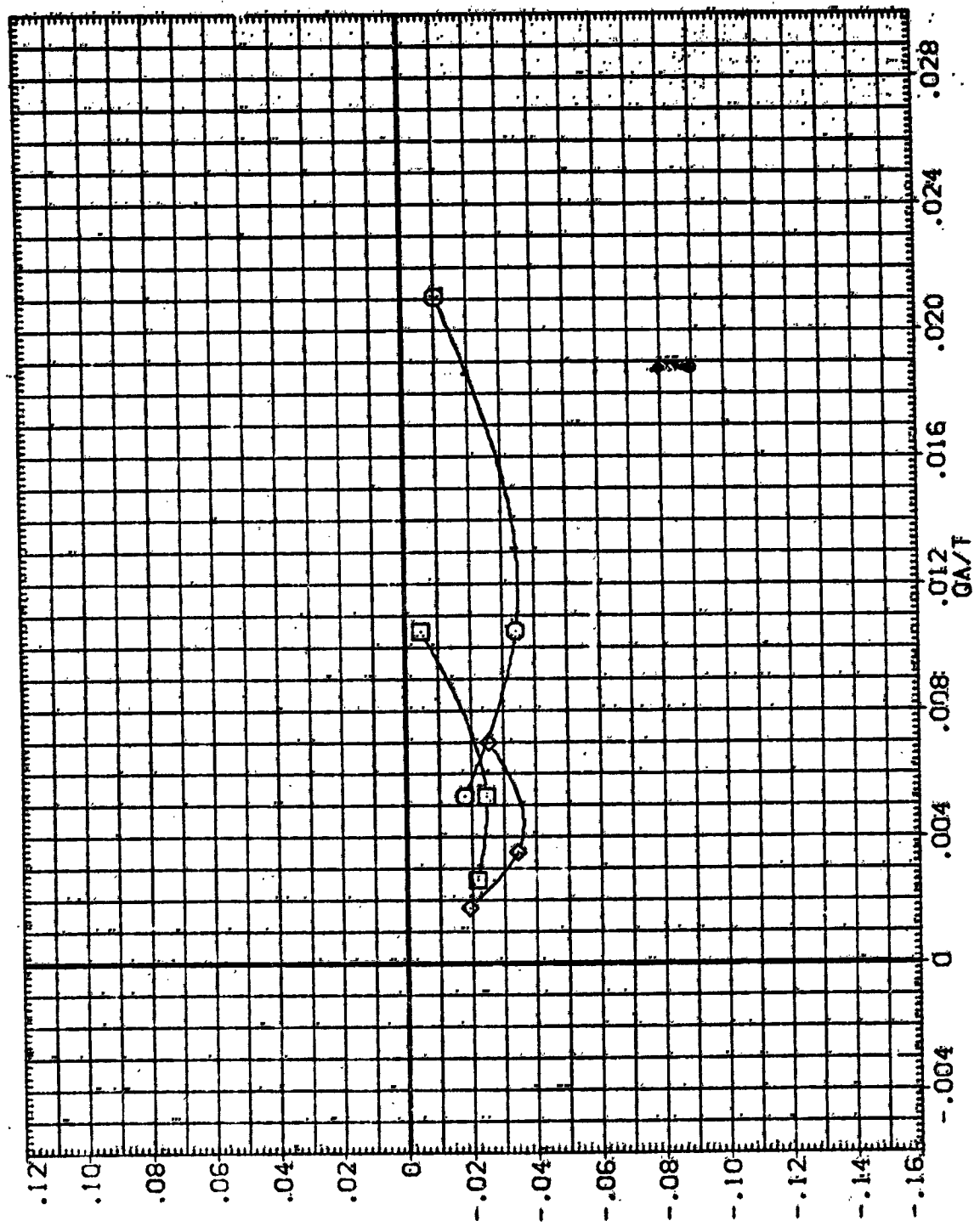


FIGURE 27. EFFECT OF MULTIPLE JET RES FIRINGS, N78, N52, N82

(O) ALPHA = -2.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BOFLAP		BETA		REFERENCE INFORMATION	
(SJA006)	Q1N78	LARC CFHT 118 (NA-22)		.080	1.000	.080				SREF	2690.0000	50. FT	
(SJA007)	Q1N52	LARC CFHT 118 (NA-22)		.080	2.000	.080				LREF	474.8000	INCHES	
(SJA008)	Q1N82	LARC CFHT 118 (NA-22)		.080	3.000	.080				BREF	936.6800	INCHES	
										XREF	1076.7000	IN. X0	
										YREF	.0000	IN. Y0	
										ZREF	375.0000	IN. Z0	
										SCALE	.0100		

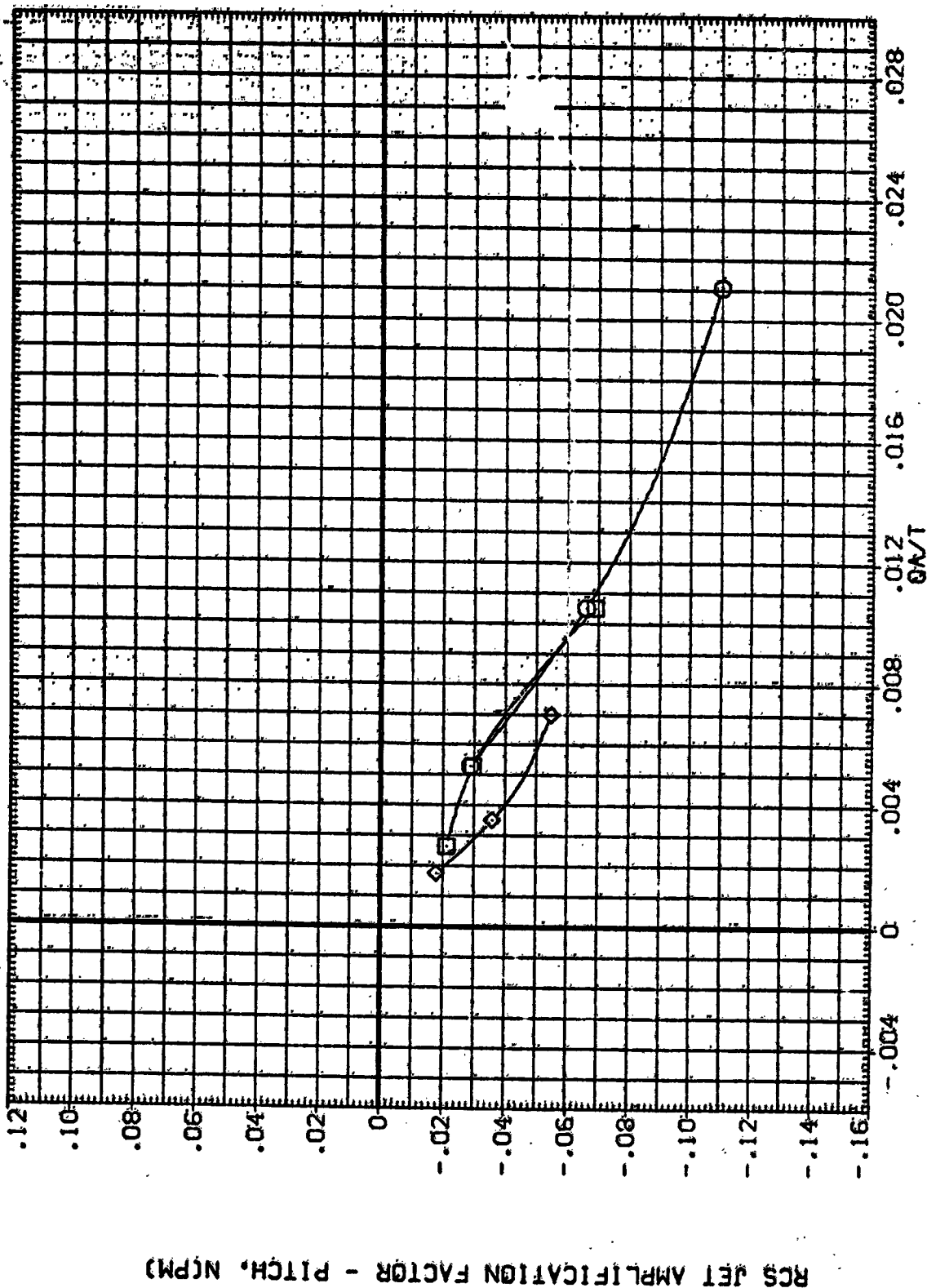


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(E) ALPHA = .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BDFLAP	BETA	REFERENCE INFORMATION
(SJA005)	CIN78	.000	1.000	.000	.000	SREF 2690.0000 SQ.FT.
(SJA007)	CIN52	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA008)	CIN82	.000	3.000	.000	.000	BREF 936.8000 INCHES
						XMRP 1076.7000 IN. YD
						YMRP .0000 IN. YD
						ZMRP 375.0000 IN. YD
						SCALE .0100

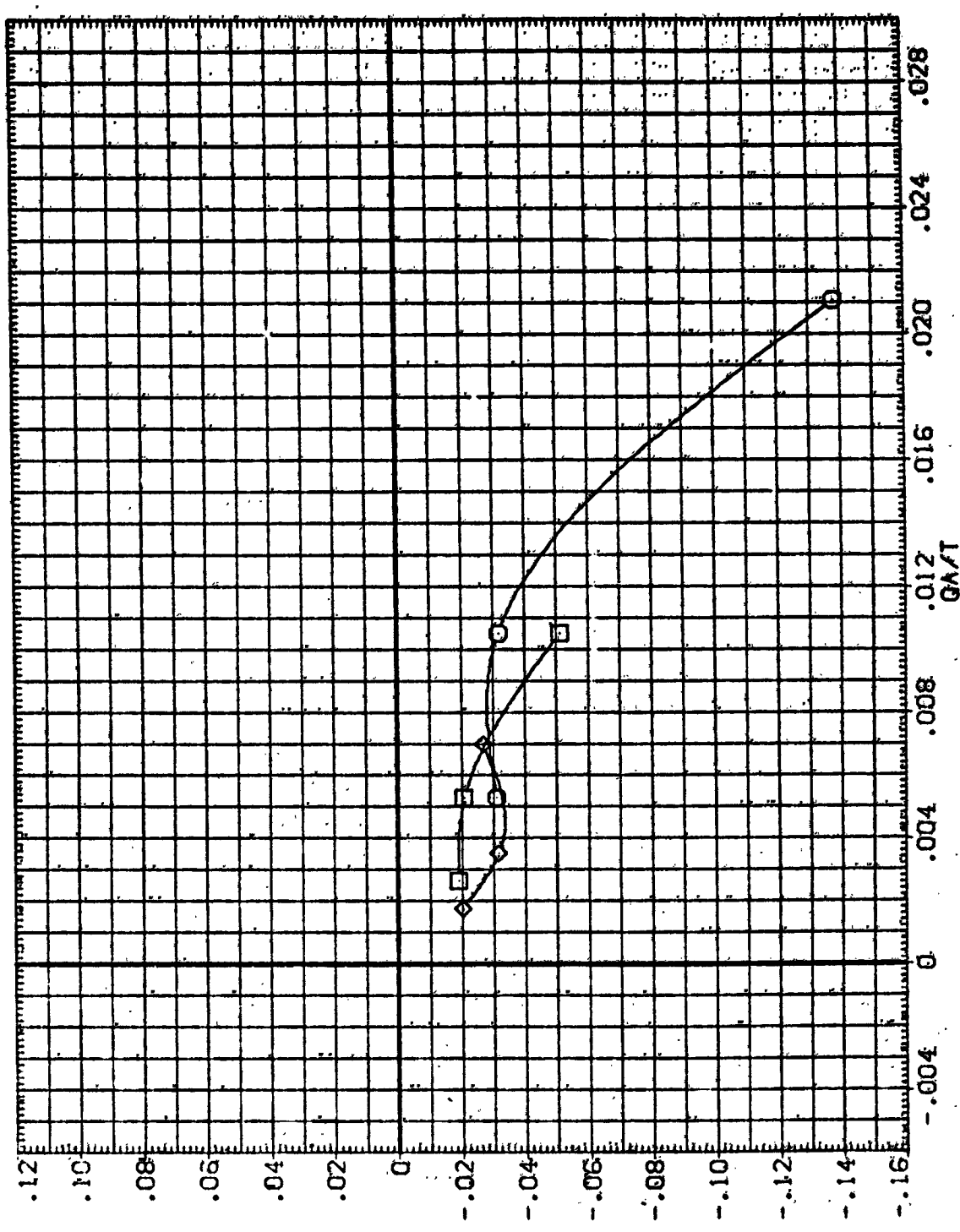


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(F)ALPHA = 2.00

DATA SET SYMBOL: 01N78, 01N52, 01N82
 CONFIGURATION DESCRIPTION: LARC CFHT 118 (HA-22), LARC CFHT 118 (HA-22), LARC CFHT 118 (HA-22)

ELEVATION: .000, .000, .000
 NO. JET: 1.000, 2.000, 3.000
 BCLAP: .000, .000, .000
 BETA: .000, .000, .000
 REFERENCE INFORMATION: SREF 2690.0000 SO. FT., LREF 474.8000 INCHES, BREF 936.5800 INCHES, XTRP 1076.7000 IN. TO, YTRP .0000 IN. TO, ZTRP 375.0000 IN. TO, SCALE .0100

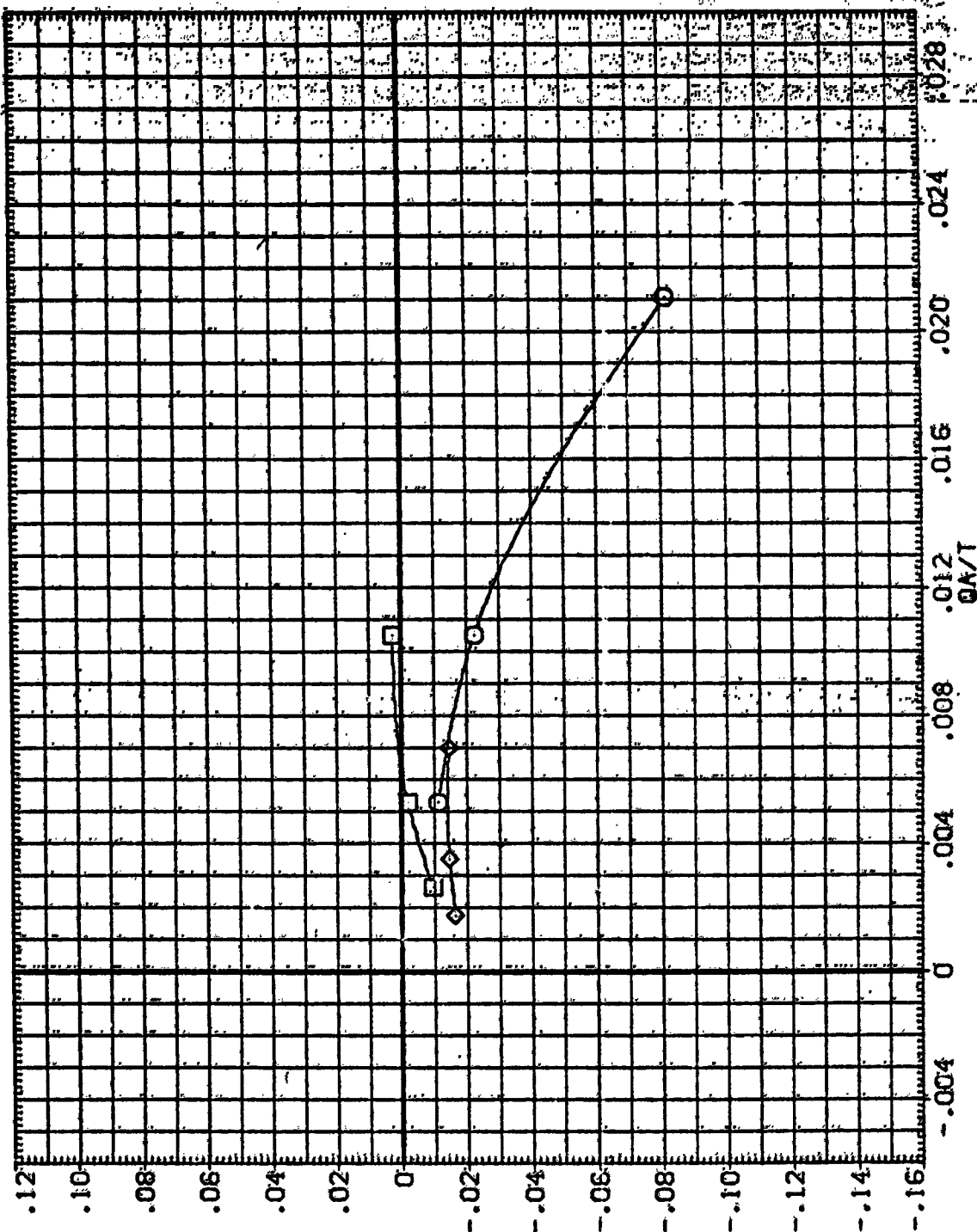


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(G) ALPHA = 4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

LSJA006	Q1N78	LARC CFHT 118 (JA-22)
LSJA007	Q1N52	LARC CFHT 118 (JA-22)
LSJA008	Q1N82	LARC CFHT 118 (JA-22)

ELEVON NO. JET BDFLAP BETA

.000	1.000	.000	.000
.000	2.000	.000	.000
.000	3.000	.000	.000

REFERENCE INFORMATION

SREF	2690.0000	50 FT.
LREF	474.8000	INCHES
PREF	936.6800	INCHES
XPRP	1076.7000	IN. X0
YPRP	375.0000	IN. Y0
ZPRP	375.0000	IN. Z0
SCALE	.0100	

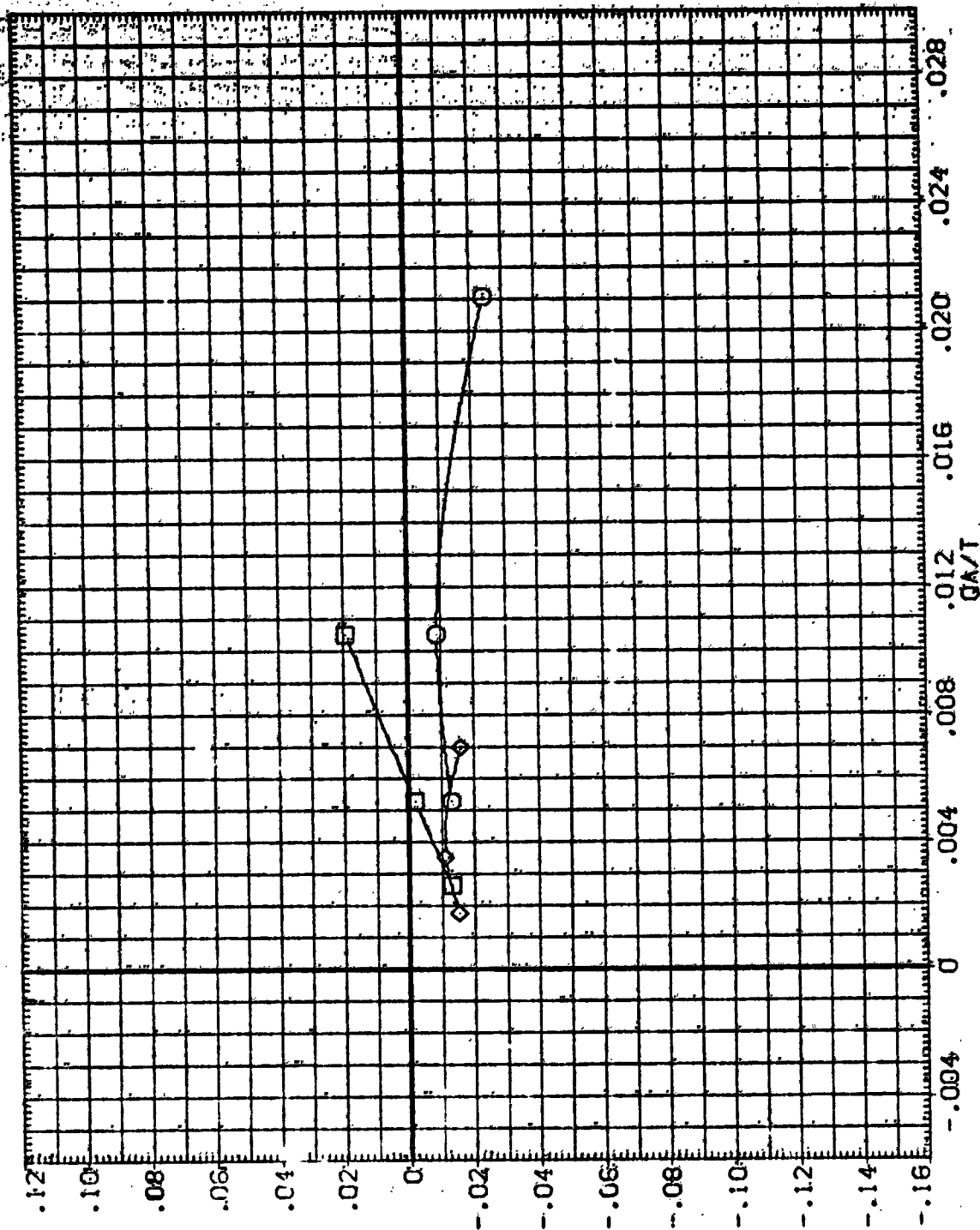


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(H) ALPHA = 6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA0015) LARC CFHT 118 (MA-22)
 (SJA0017) LARC CFHT 118 (MA-22)
 (SJA0018) LARC CFHT 118 (MA-22)

ELEVON NO. 101 08FL. 08FL. 08FL.
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION
 SREF 2698.0000 INCHES
 LREF 479.4000 INCHES
 XREF 935.8000 IN. NO
 XREF 1076.7000 IN. NO
 YREF 0000 IN. NO
 ZREF 375.0000 IN. NO
 SCALE .0100

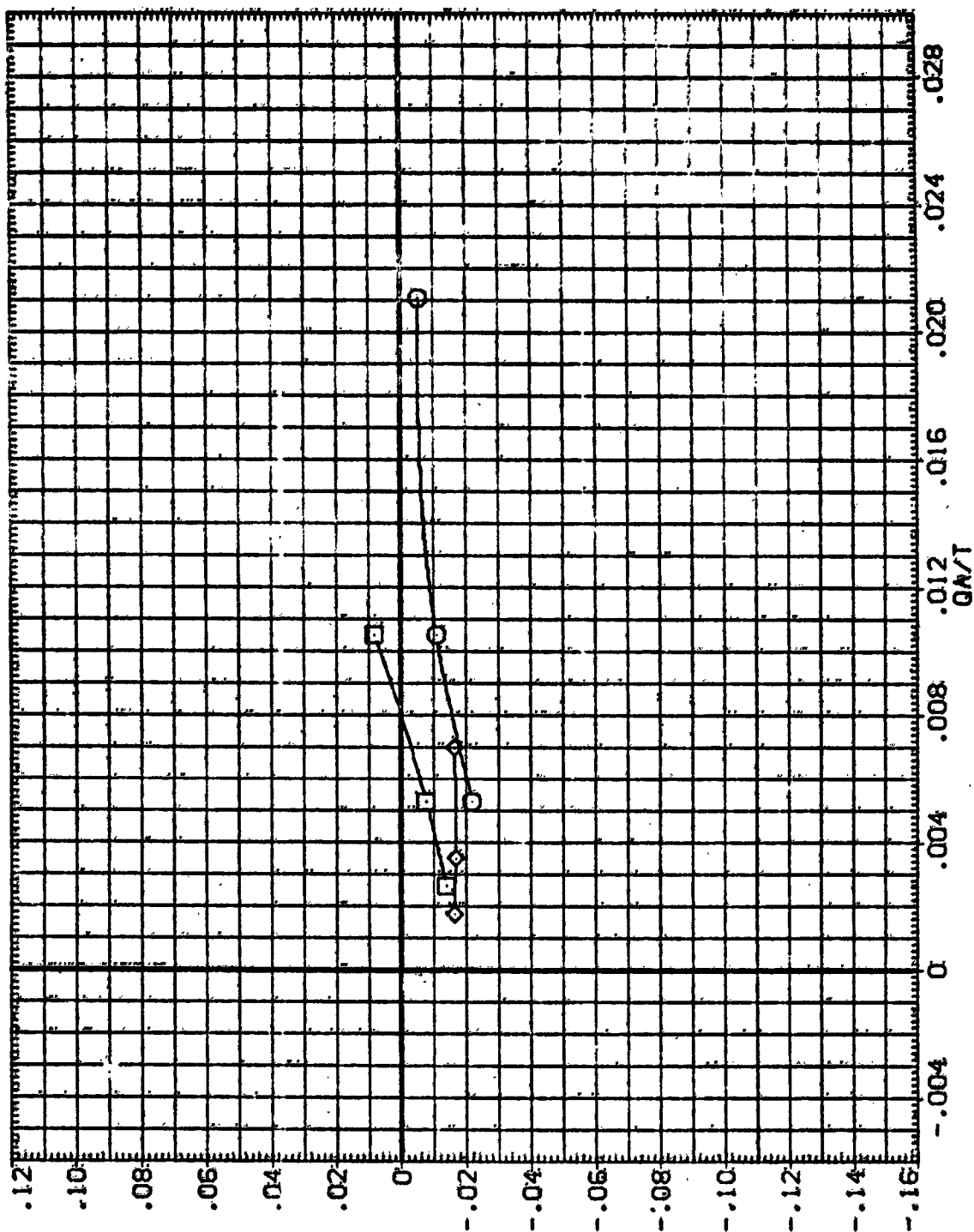


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(I)ALPHA = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(SJA005) Q1N78 LARC CFHT 118 (MA-22)

(SJA007) Q1N53 LARC CFHT 118 (MA-22)

(SJA008) Q1N92 LARC CFHT 118 (MA-22)

ELEVON NO-JET BDELAP BETA REFERENCE INFORMATION

.000 1.000 .000 .000 SREF 2650.0000 SO.FT.

.000 3.000 .000 .000 LREF 474.8000 INCHES

.000 .000 .000 .000 BREF 936.6800 INCHES

.000 .000 .000 .000 XREF 1076.7000 IN. X0

.000 .000 .000 .000 YREF .0000 IN. Y0

.000 .000 .000 .000 ZREF 375.0000 IN. Z0

.000 .000 .000 .000 SCALE .0100

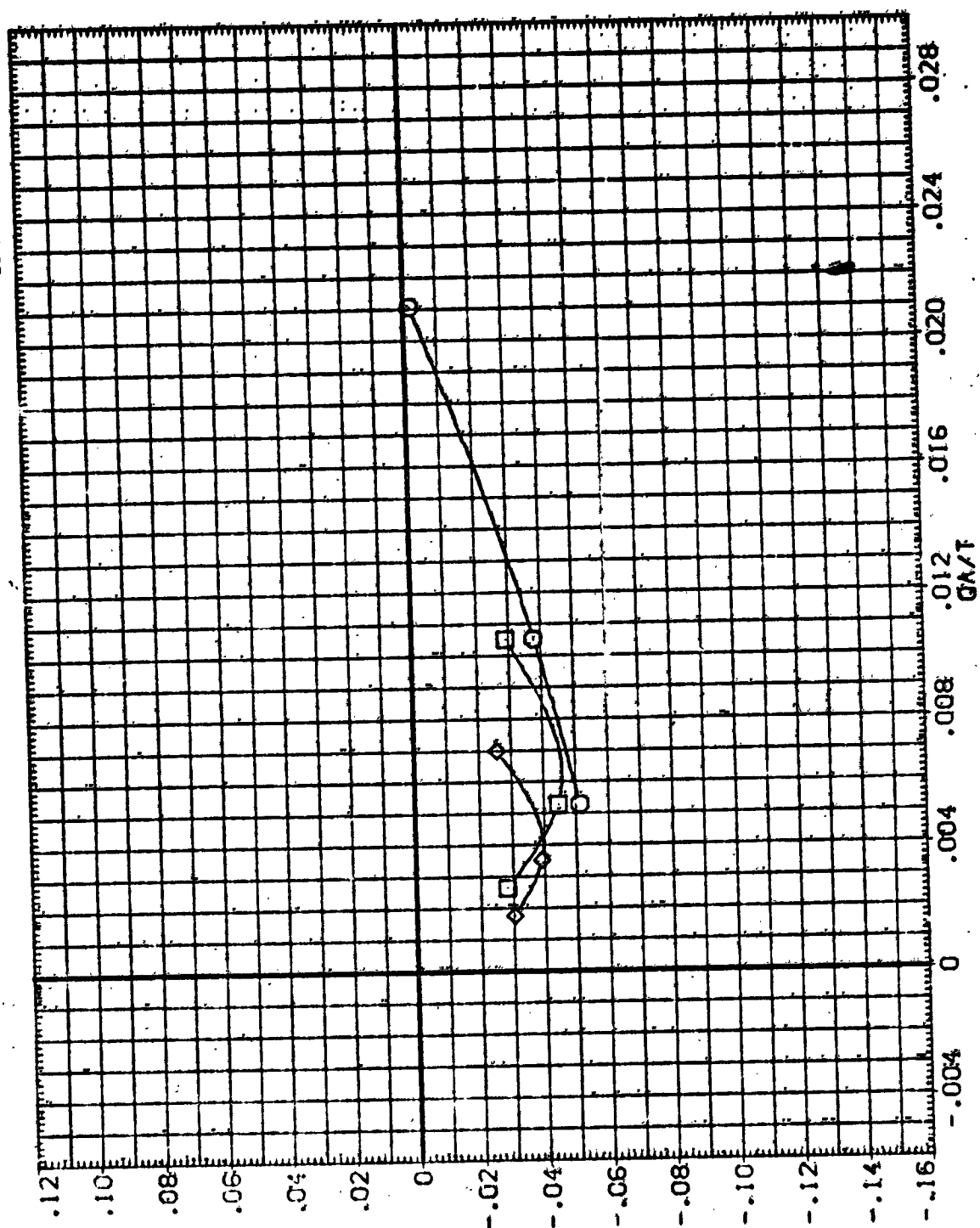


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(J)ALPHA = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) QIN79 LARC CFMT 118 (NA-22)
 (SJA007) QIN52 LARC CFMT 118 (NA-22)
 (SJA008) QIN82 LARC CFMT 118 (NA-22)

ELEVON NO. JET RCFLAP BETA REFERENCE INFORMATION
 .080 1.000 .000 SREF 2600.0000 50.00
 .000 2.000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 RREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

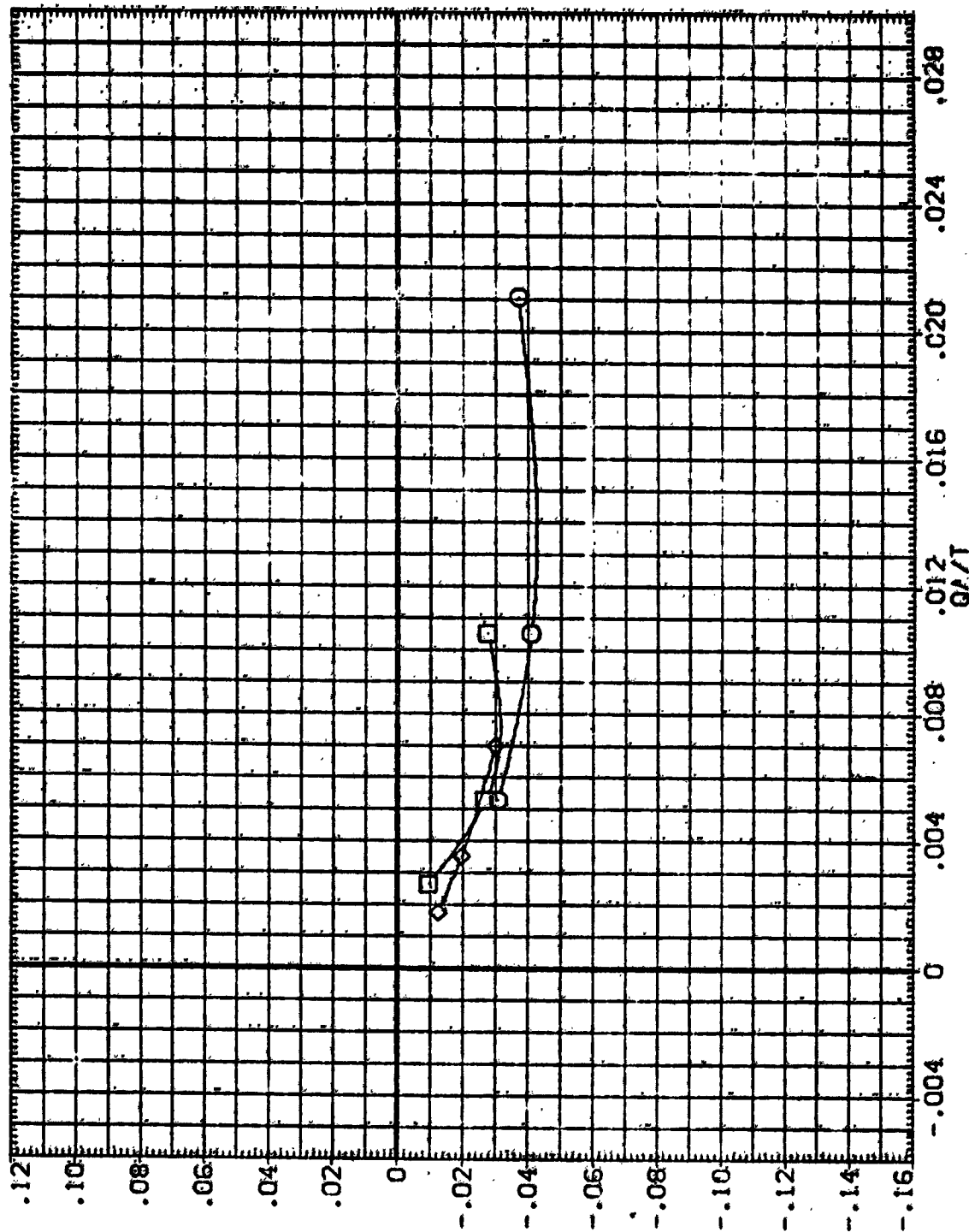
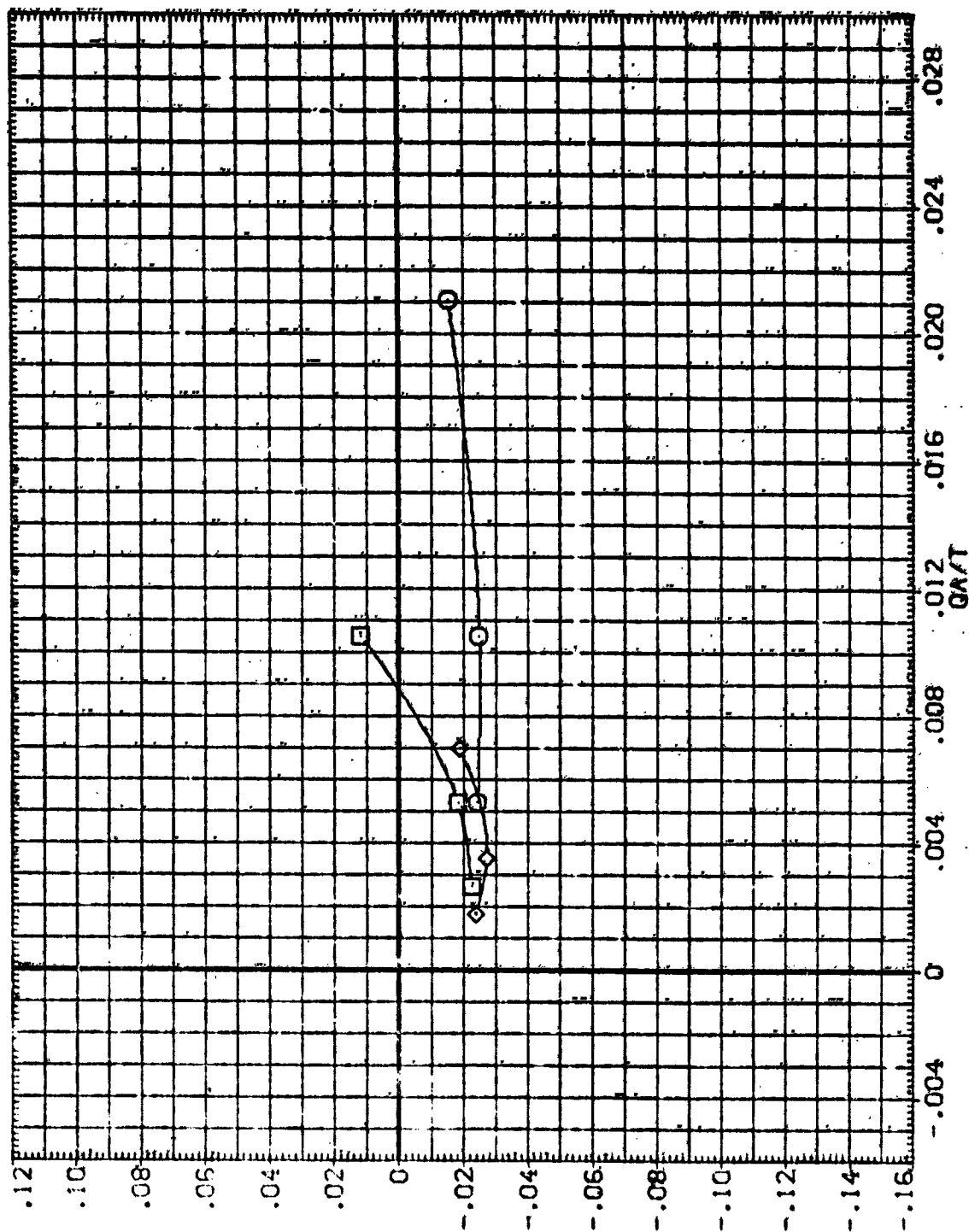


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78.N52.N82

(K)ALPHA = 15.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BBFLAP	BETA	REFERENCE INFORMATION			
(SAC06)	QIN78 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	SREF	2590.0000	SO. FT.	
(SAC07)	QIN62 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LBREF	474.8000	INCHES	
(SAC08)	QIN82 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	BRREF	936.6800	INCHES	
						YPRP	1076.7000	IN. X0	
						ZPRP	.0000	IN. Y0	
						SCALE	379.0000	IN. Z0	
							.0100		



RCS JET AMPLIFICATION FACTOR - PITCH, NFM)

FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78.N52.N82

(L)ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO-JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJ1006)	LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	SREF 350.0000 50.00
(SJ1007)	QIN78 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJ1008)	QIN82 LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	QREF 535.6000 INCHES
						XREF 1076.2000 IN. X0
						YREF .0000 IN. Y0
						ZREF 375.0000 IN. Z0
						SCALE .0100

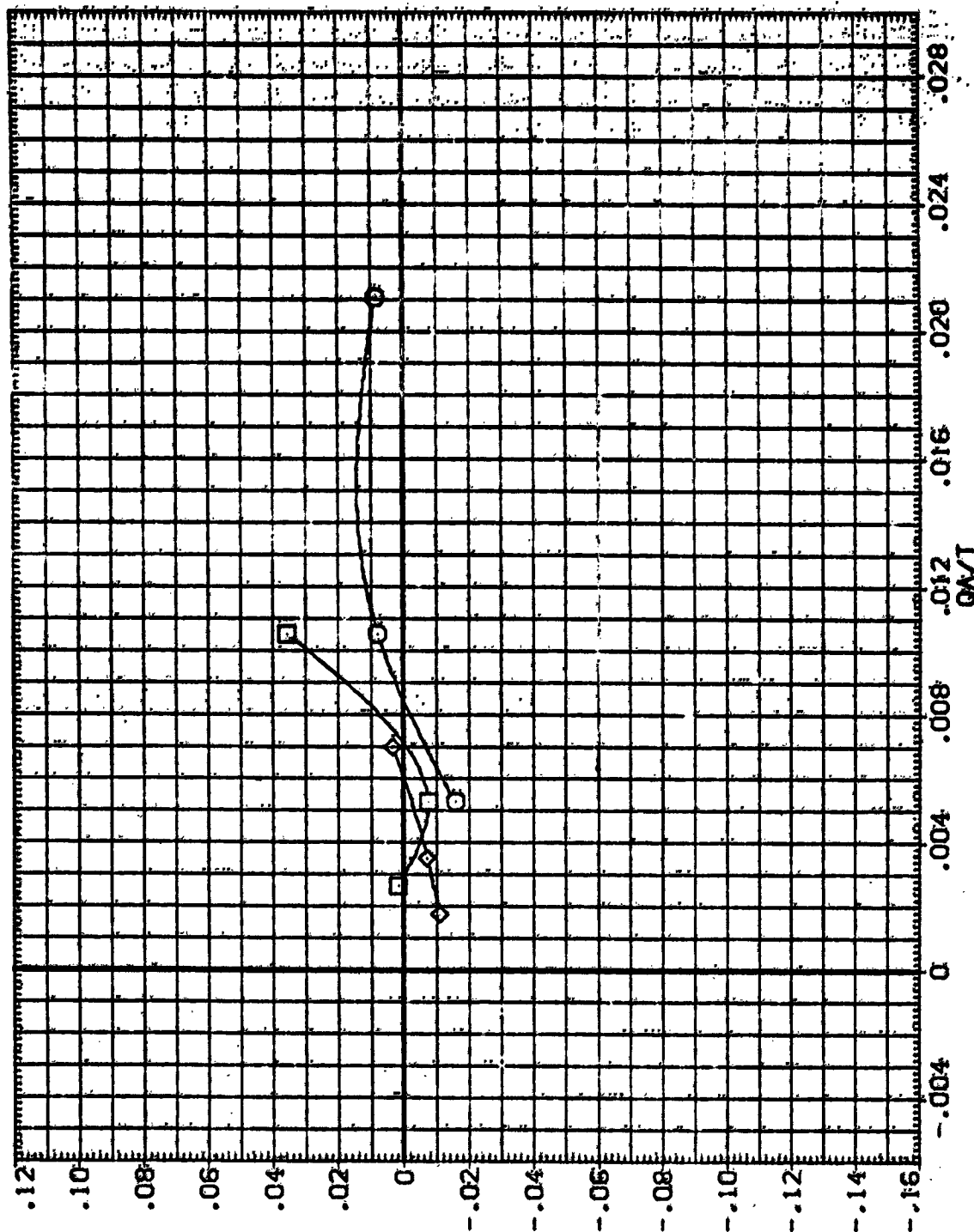


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(M) ALPHA = 25.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	80FLAP	BETA	REFERENCE INFORMATION
(SJA8057)	01N78 LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	SREP 2650.0000 150.57
(SJA0023)	01N52 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA0003)	01N82 LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	BREF 916.6000 INCHES
						XREP 1076.7000 IN. 10
						YREP .0000 IN. 10
						ZREP 375.0000 IN. 20
						SCALE .0100

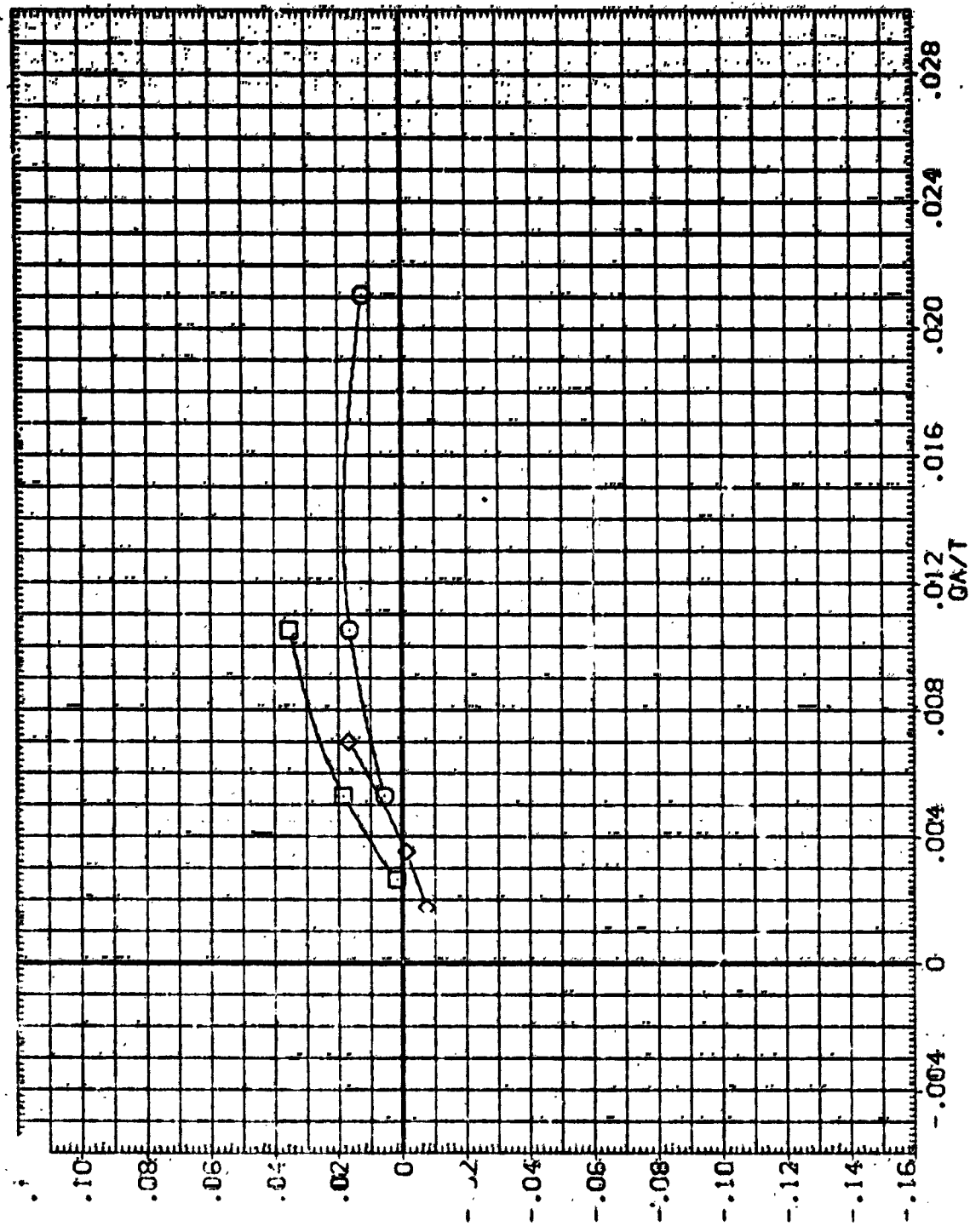


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78.N52.N82

(N7ALP1A = 30.00

ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION	SO. FT.
.000	1.000	.000	.000	SAFE	290.0000
.000	2.000	.000	.000	LEEF	474.0000
.000	3.000	.000	.000	LEF	938.6800
				ALAP	1076.7000
				TRAP	.0000
				ZHAP	375.0000
				SCALE	.0100

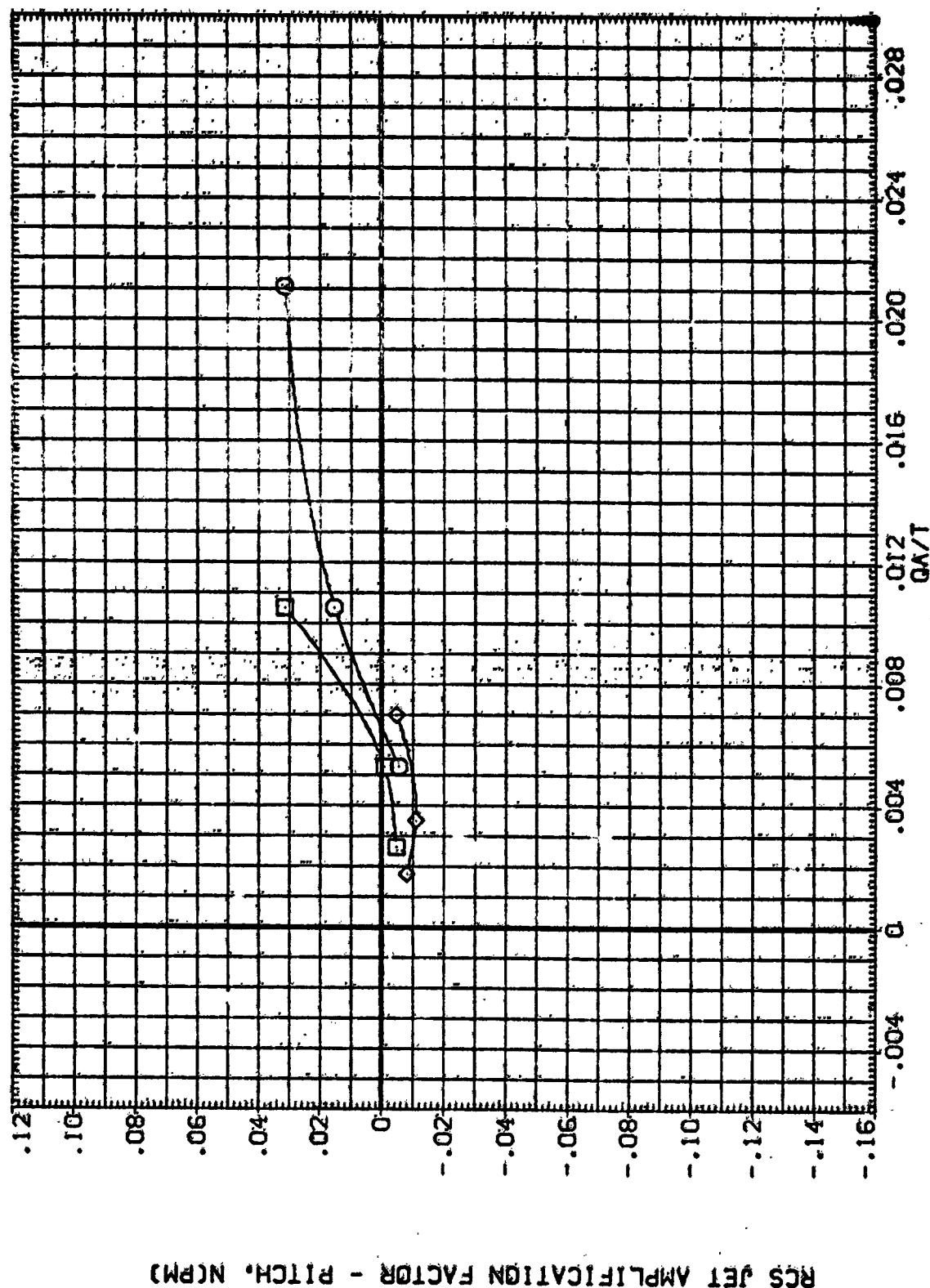


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

COJALPHA = 35.00.

DATA SET SYMBOL	01N78	01N52	01N82	CONFIGURATION DESCRIPTION	LARC CPHT 118 (MA-22)	LARC CPHT 118 (MA-22)	LARC CPHT 118 (MA-22)	ELEVON	NO. JET	BD FLAP	BETA	REFERENCE INFORMATION
(SJA006)								.000	1.000	.000	.000	SREF 2698.0000
(SJA007)								.000	2.000	.000	.000	LREF 474.8000
(SJA008)								.000	3.000	.000	.000	BREF 536.6800
												XMRP 1076.7000
												YMRP .0000
												ZMRP 375.0000
												SCALE .0100

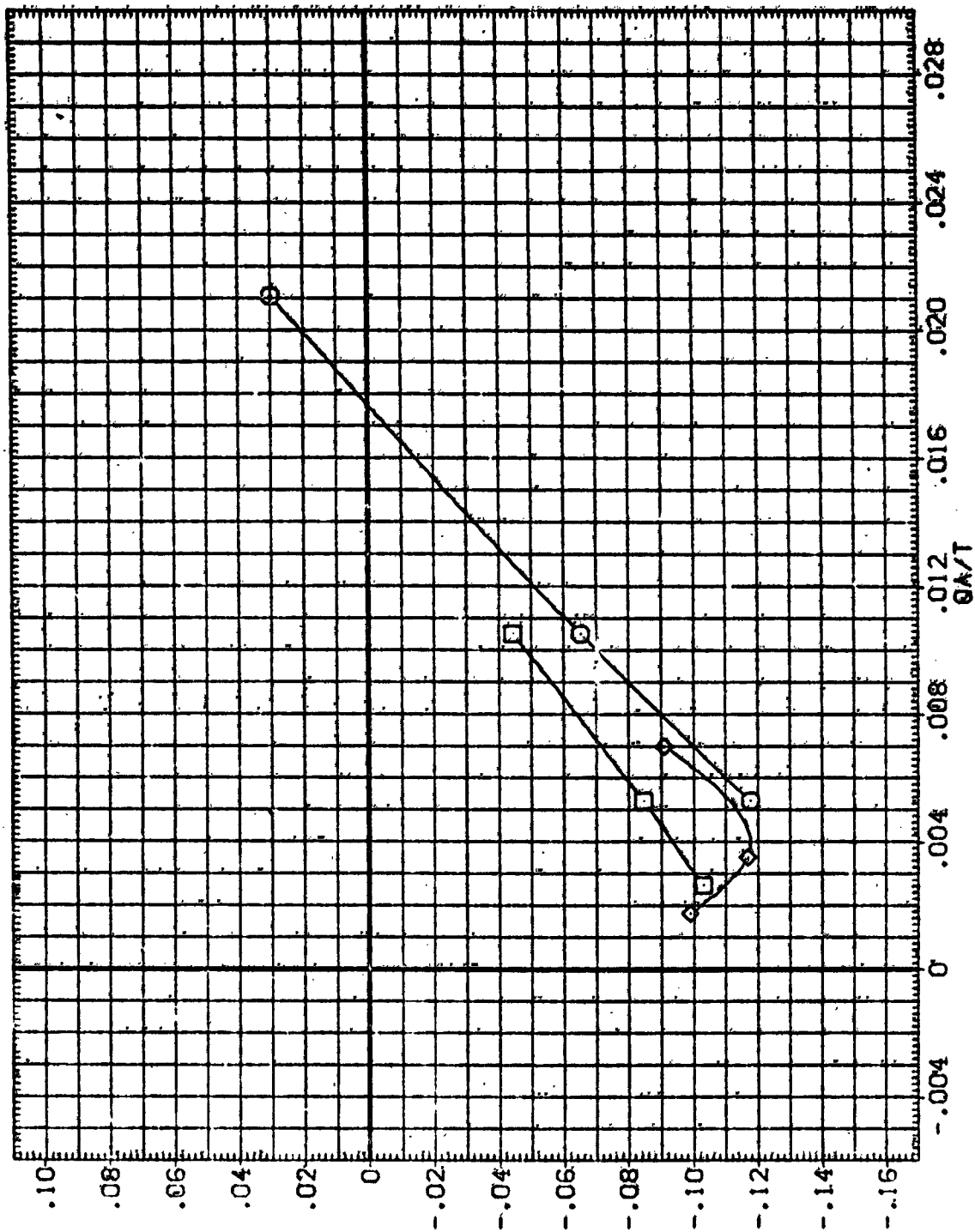


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82

(A) ALPHA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BETA	REFERENCE INFORMATION
(SJA006)	LARE CFHT 118 (MA-22)	.000	1.000	.000	SREF 2590.0000
(SJA007)	LARE CFHT 118 (MA-22)	.000	2.000	.000	LREF 477.8000
(SJA008)	LARE CFHT 118 (MA-22)	.000	3.000	.000	SRF 935.6800
					XRFP 1076.7000
					YRFP .0000
					ZRFP 375.0000
					SCALE .0100

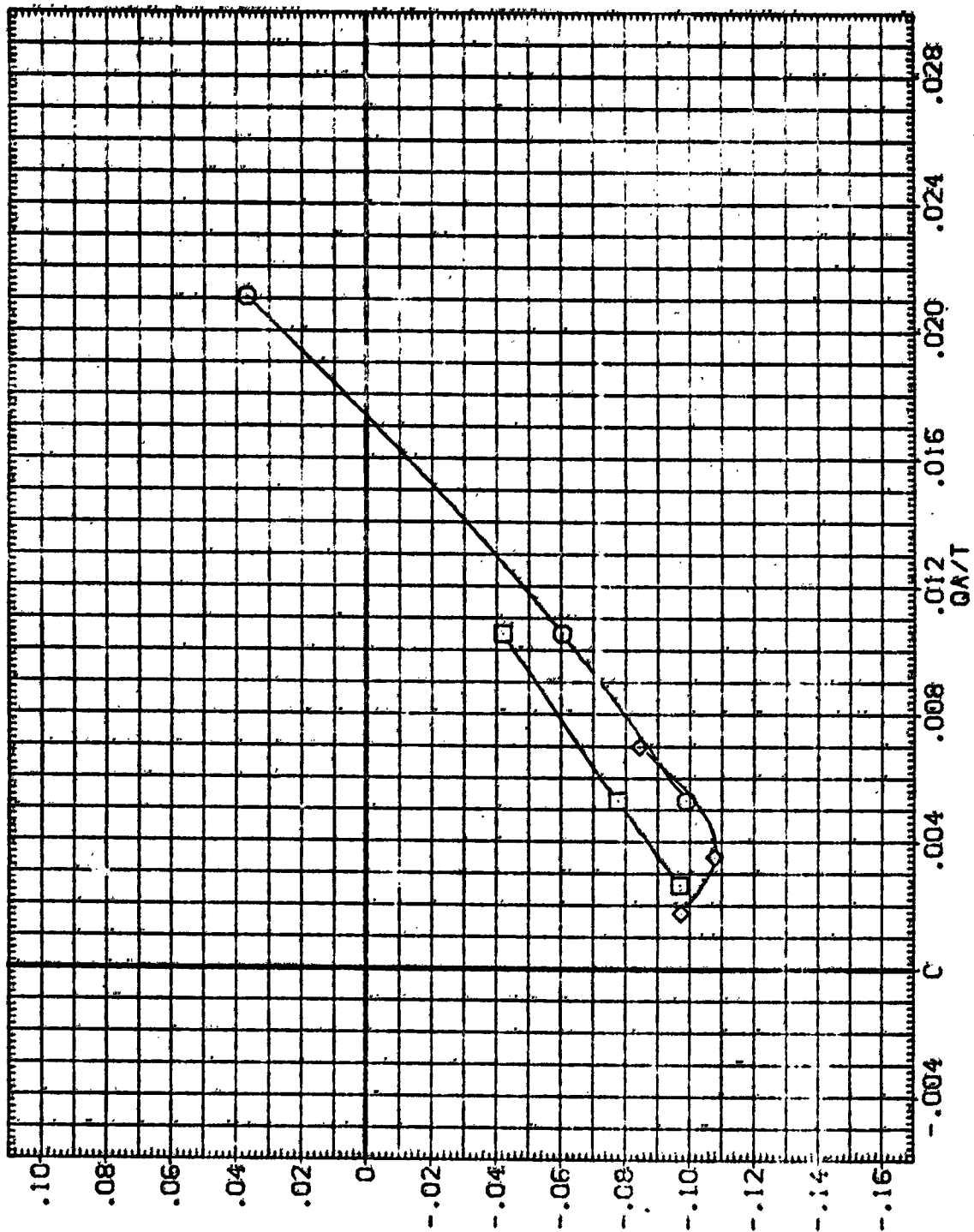


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(B) ALPHA = -6.00

DATA SET SYMBOL
 (S1A006)
 (S1A007)
 (S1A008)

CONFIGURATION DESCRIPTION
 01N78 LARC CFHT 118 (MA-22)
 01N52 LARC CFHT 118 (MA-22)
 01N82 LARC CFHT 118 (MA-22)

ELEVON NO. JET BETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION
 SREF 2690.0900 SQ. FT.
 LREF 471.8670 INCHES
 BREF 936.5800 INCHES
 XMRP 1876.7000 IN. X0
 YMRP .0800 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, (NCF)

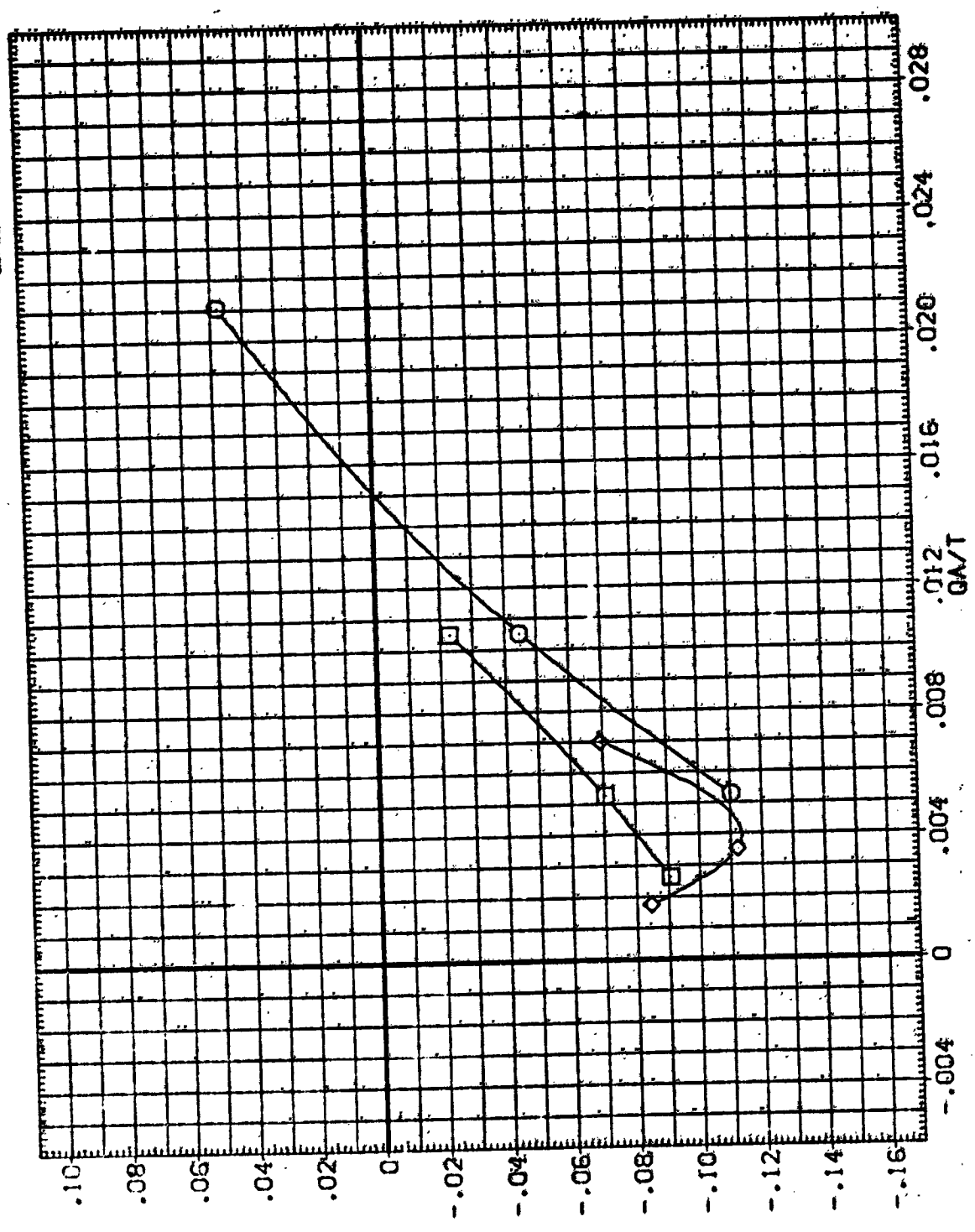


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(C) ALPHA = -4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) QIN78 LARC CFHE 118 (MA-22)
 (SJA007) QIN52 LARC CFHE 118 (MA-22)
 (SJA008) QIN82 LARC CFHE 118 (MA-22)

ELEVON NO. JET BOFLAP ETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.400 .000

REFERENCE INFORMATION
 SREF 2690.0000 SO.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. 10
 YMRP .0000 IN. 10
 ZMRP 375.0000 IN. 20
 SCALE .0100

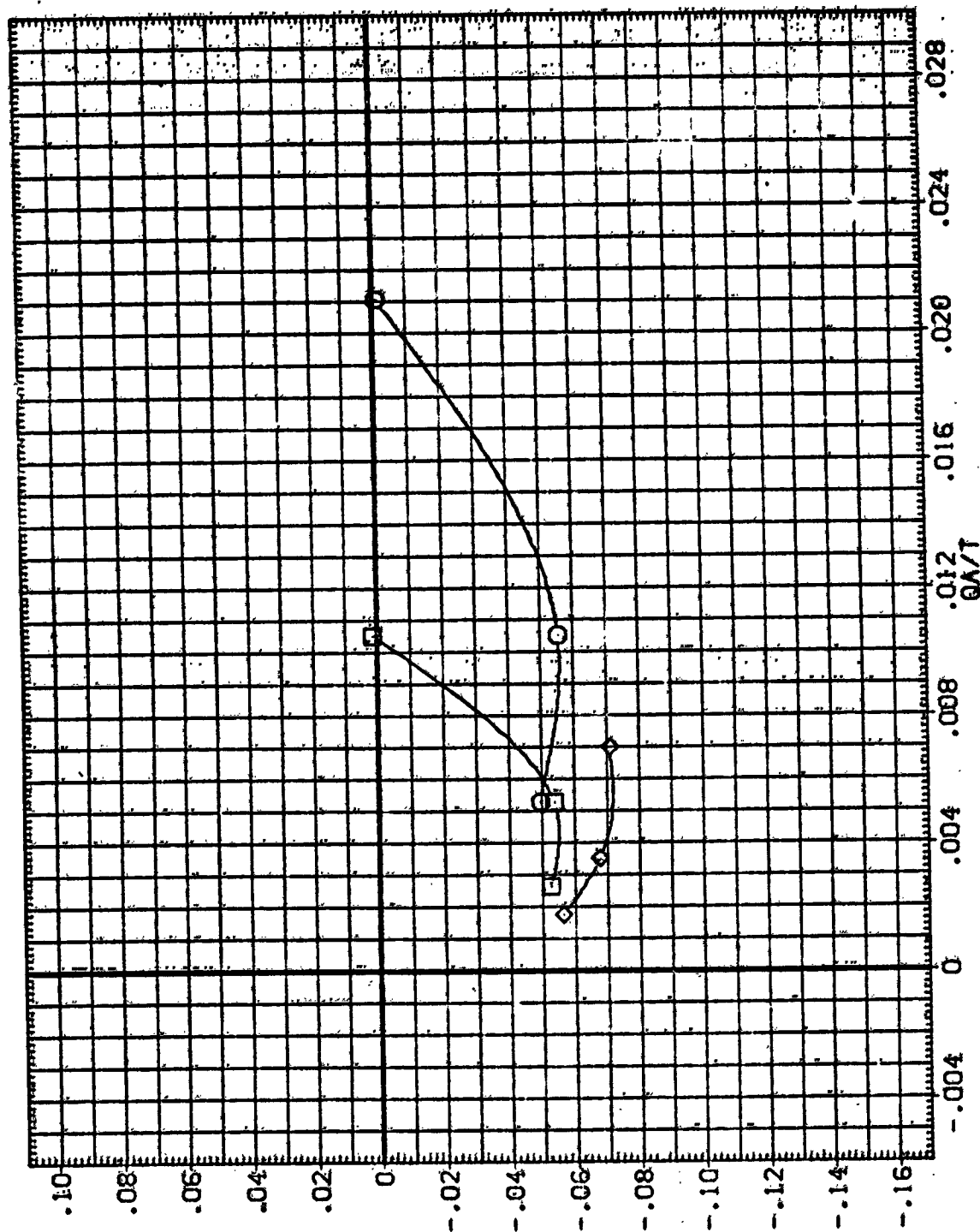


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(DIALPHA = -2.00)

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION	
(SJA005)	Q1N78	LARC CPHT 118 (MA-22)		.080	1.000	.080	.000	SREF	2690.0000
(SJA007)	Q1N52	LARC CPHT 118 (MA-22)		.080	2.000	.000	.000	LREF	474.8000
(SJA008)	Q1N82	LARC CPHT 118 (MA-22)		.080	3.000	.000	.000	BREF	936.6800
								XMRP	1876.7000
								YMRP	.0000
								ZMRP	375.0000
								SCALE	.0100

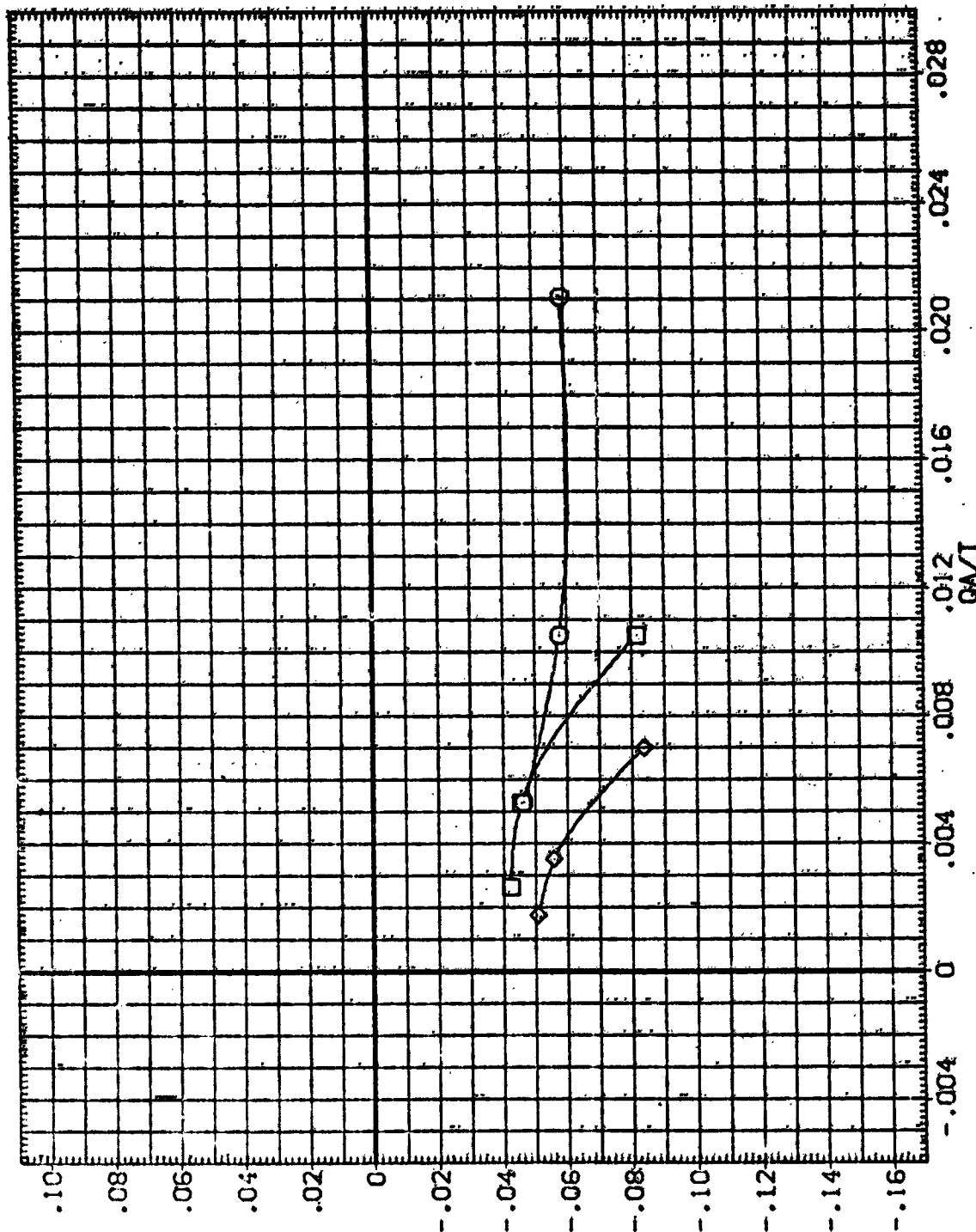


FIGURE 27. EFFECT OF MULTIPLE JET RES FIRINGS, N73, N52, N82

(E)ALPHA = .00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) Q1N78 LARC CFHF 118 (MA-22)
 (SJA007) Q1N52 LARC CFHF 118 (MA-22)
 (SJA008) Q1N82 LARC CFHF 118 (MA-22)

ELEVON NO. JET BDFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 2690.0000 50. FT.
 .000 2.000 .000 474.8000 INCHES
 .000 3.000 .000 936.6670 INCHES
 YMRP 1026.7000 IN. X0
 ZMRP .0000 IN. Y0
 SCALE 375.0000 IN. Z0

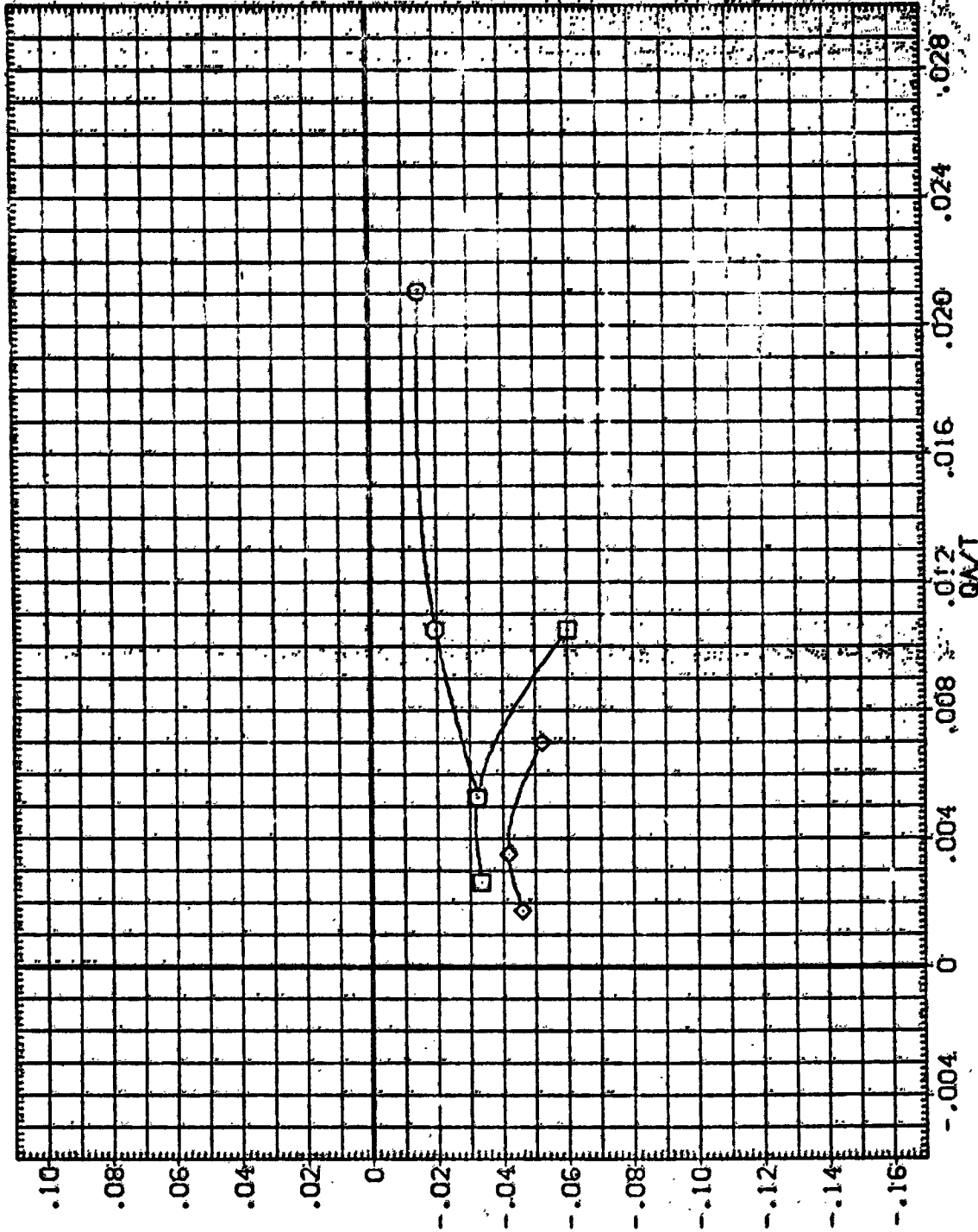


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82

(F)ALPHA = 2.00

DATA SET SYMBOL: (SJA006), (SJA007), (SJA008)
 CONFIGURATION DESCRIPTION: LARC CFHT 118 (MA-22), LARC CFHT 118 (MA-22), LARC CFHT 118 (MA-22)
 NO. JET: 1.000, 2.000, 3.000
 ELEVON: .000, .000, .000
 REFLECT: .000, .000, .000
 BETA: .000, .000, .000
 REFERENCE INFORMATION: SREF 2690.0000, LREF 474.8000, BREF 336.6800, XREF 1076.7000, YREF 375.0000, ZREF 0.0100, SCALE .0100

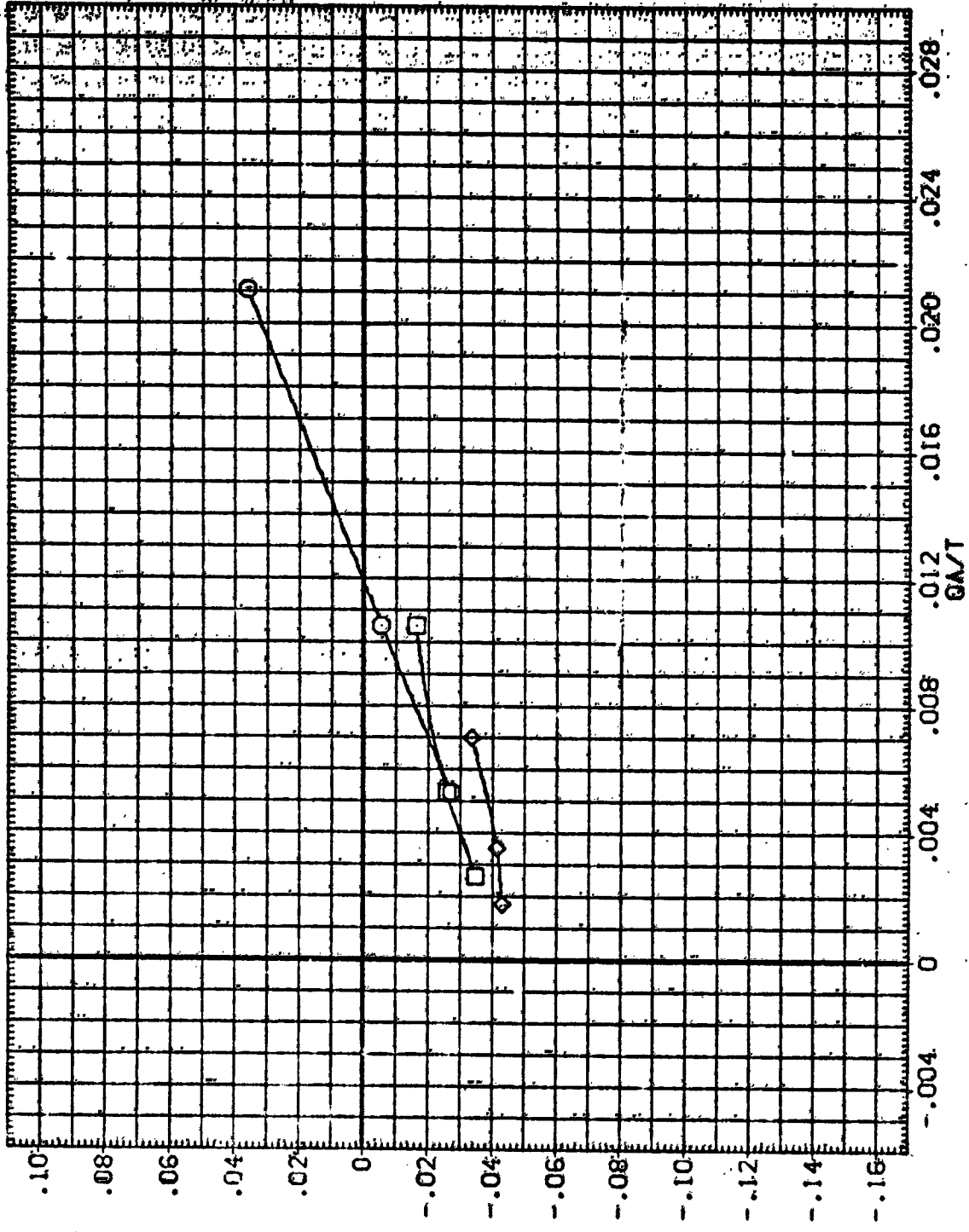


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(G) ALPHA = 4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJAD06) 01N78 LARC CFMT 118 (NA-22)
 (SJAD07) 01N52 LARC CFMT 118 (NA-22)
 (SJAD08) 01N82 LARC CFMT 118 (NA-22)

ELEVON NO. JET 80FLAP BETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION
 SREF 690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.5000 INCHES
 XMRP 1076.7000 IN. NO
 YMRP .6000 IN. NO
 ZMRP 325.6000 IN. NO
 SCALE .0100

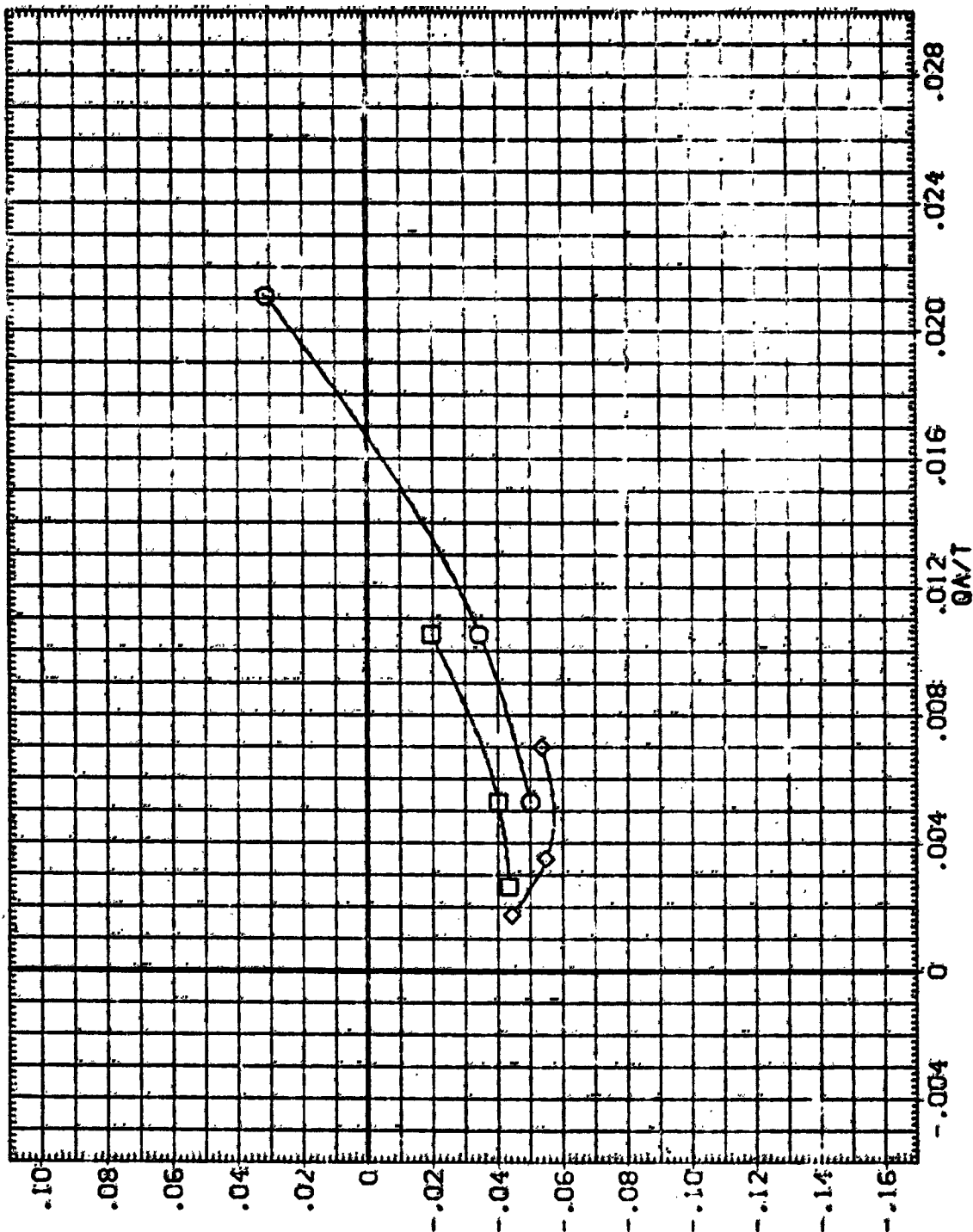


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78,N52,N82

(H)ALPHA = 6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA005) Q1M78 LARC CFMT 118 (MA-22)
 (SJA007) Q1M52 LARC CFMT 118 (MA-22)
 (SJA008) Q1M83 LARC CFMT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA
 .000 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

REFERENCE INFORMATION
 SREF 2690.00 INCHES
 LREF 474.81 INCHES
 BREF 936.61 INCHES
 XMRP 1076.71 INCHES
 YMRP .00 INCHES
 ZMRP 375.00 INCHES
 SCALE .0100

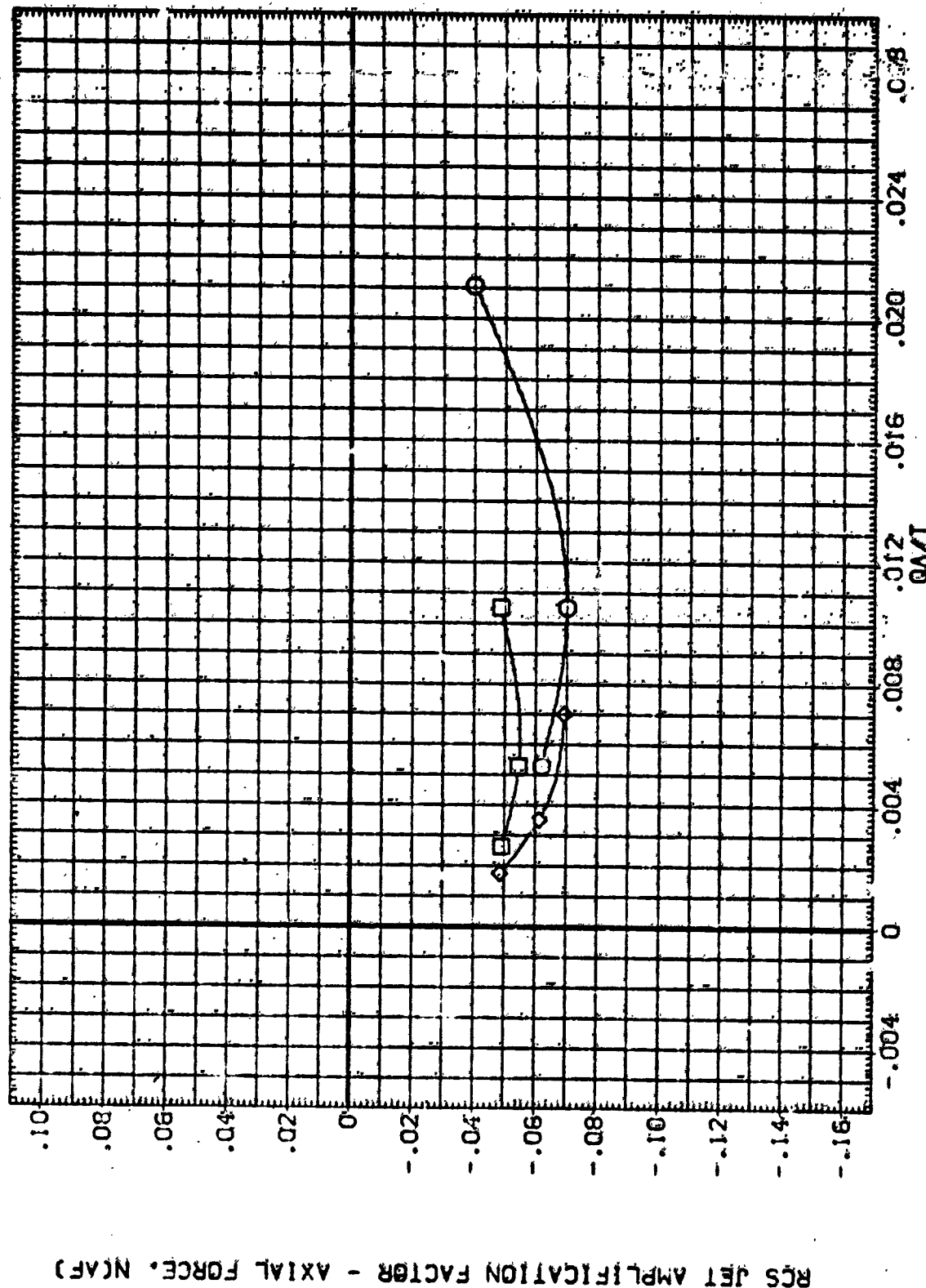


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82
 (T)ALPHA = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) QIN78 LARC CFHT 118 (MA-22)
 (SJA007) QIN52 LARC CFHT 118 (MA-22)
 (SJA008) QIN82 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDFLAP SETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2593.000 IN. Y0
 .000 2.000 .000 LREF 474.000 IN. Y0
 .000 3.000 .000 BREF 946.000 IN. Y0
 XREF 1076.000 IN. Y0
 YREF .0000 IN. Y0
 ZREF .0000 IN. Y0
 SCALE .0100

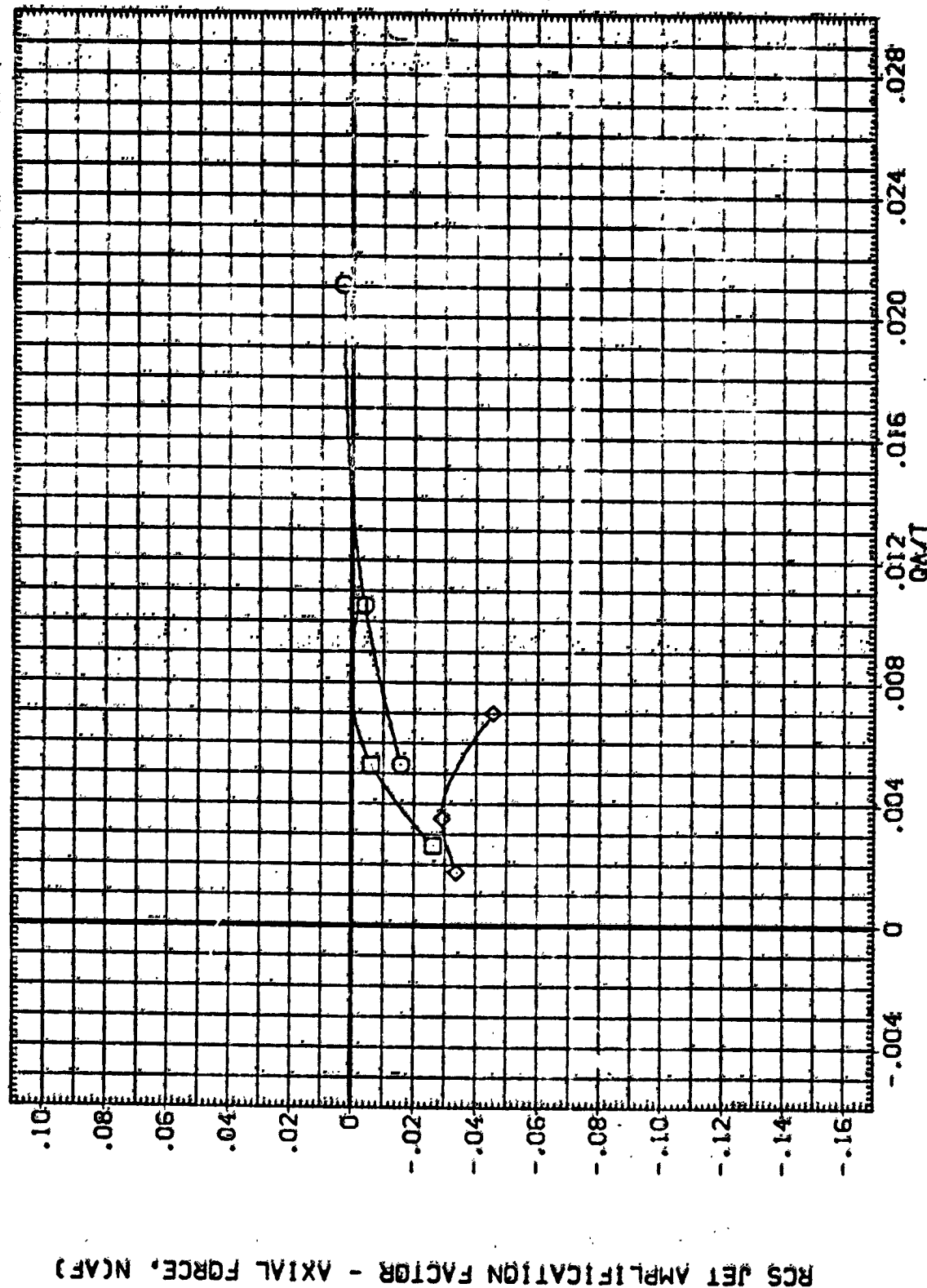


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(J)ALPHA = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA026)	Q1N78 LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	SREF 2650.0000 SO.FT.
(SJA027)	Q1N52 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA028)	Q1N82 LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6800 INCHES
						XREF 1076.7000 IN. NO
						YREF .0000 IN. YB
						ZREF 375.0000 IN. ZB
						SCALE .0100

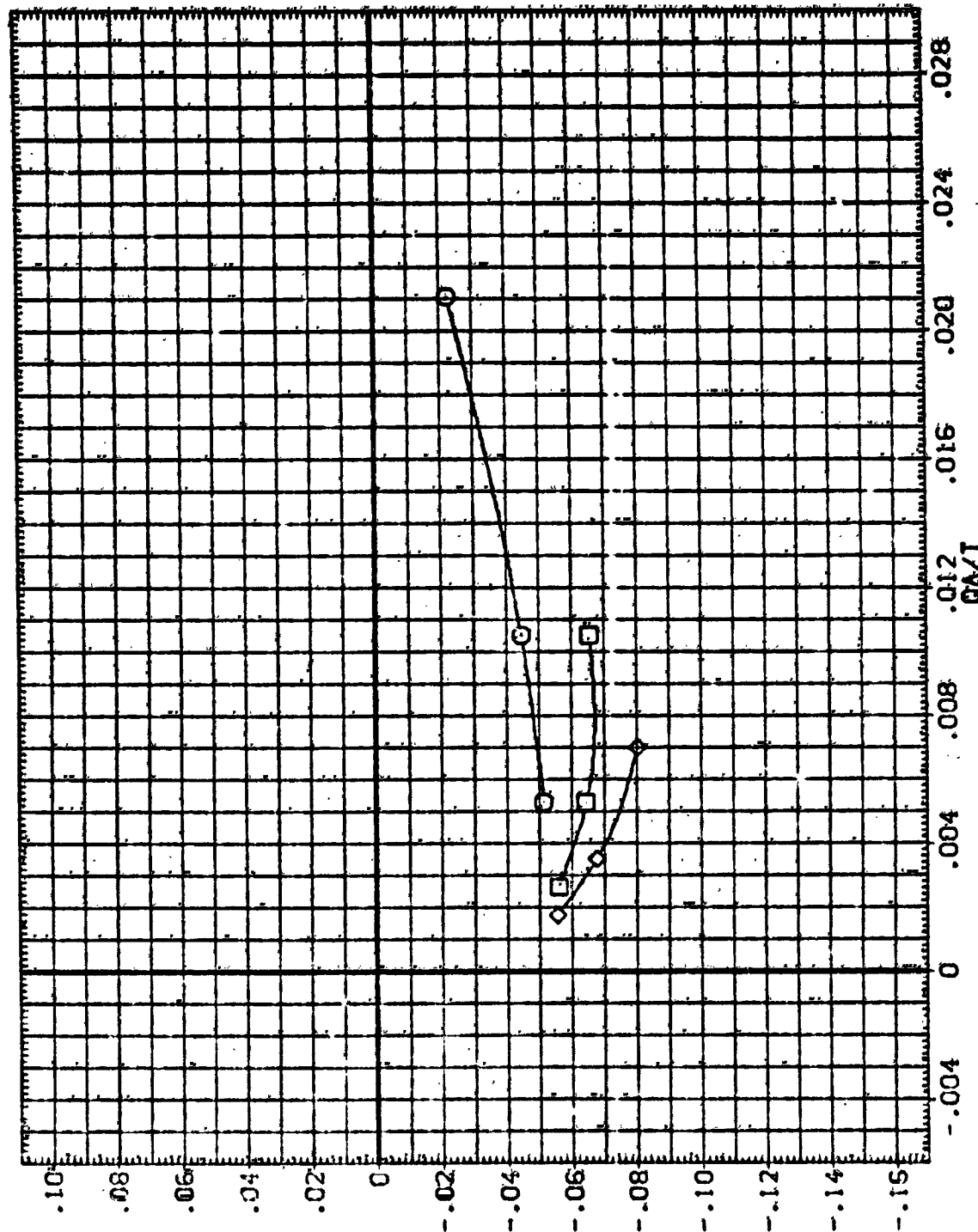


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78,N52,N82

(K)ALPHA = 15.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJ1005) Q1N78 LARC CFMT 118 (MA-221)
 (SJ1007) Q1N52 LARC CFMT 118 (MA-221)
 (SJ1008) Q1N82 LARC CFMT 118 (MA-221)

ELEVON NGJET BOFLAP DELTA REFERENCE INFORMATION
 .000 1.000 .020 .000 25.0 0.000 50.0 FT
 .000 2.800 .000 .000 47.0 0.000 100.0 FT
 .000 3.800 .000 .000 506.6635 1076.7000 100.0000 100.0000
 VMPP VMPP VMPP VMPP VMPP VMPP VMPP VMPP
 SCALE 375.0000 100.0000 100.0000

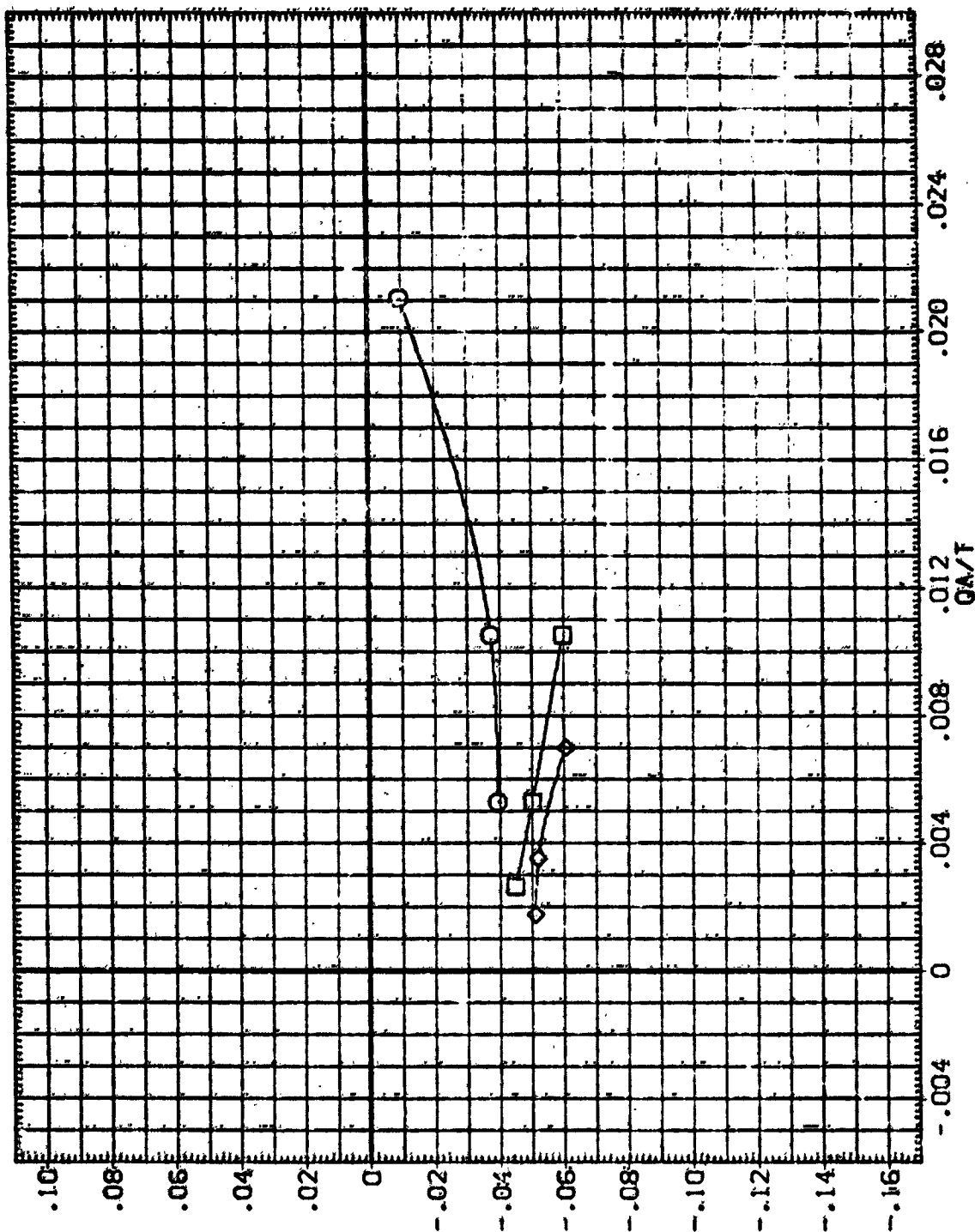


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78.N52.N82

(L) ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA006)	C1N78 LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	SREF 2630.0000
(SJA007)	C1N52 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LRBF 474.8000
(SJA008)	C1N82 LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	BRBF 936.6000
						YREF 1076.7000
						ZREF .0000
						SCALE 375.0000
						IN. 20

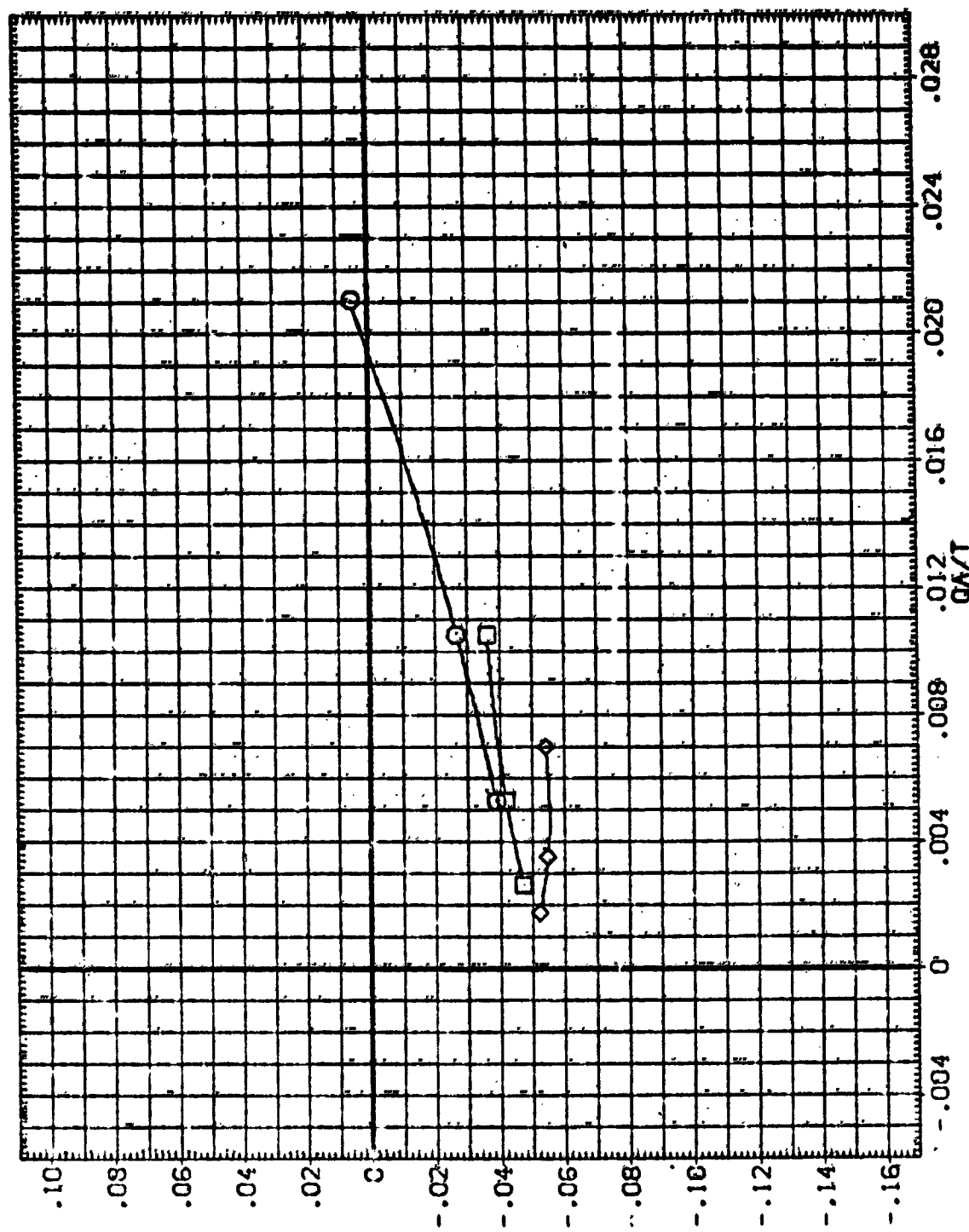


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78,N52,N82
(M)ALPHA = 25.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) QIN78 LARC CFHT 118 (MA-22)
 (SJA007) QIN52 LARC CFHT 118 (MA-22)
 (SJA008) QIN82 LARC CFHT 118 (MA-22)

ELEVON NO. IEF BOFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2490.0000 30.01
 .000 2.000 .000 LBREF 474.8000 1.0000
 .000 3.000 .000 BRREF 935.5000 1.0000
 ZMRP 1076.7000 IN. 10
 ZMRP .0000 IN. 20
 SCALE .0100

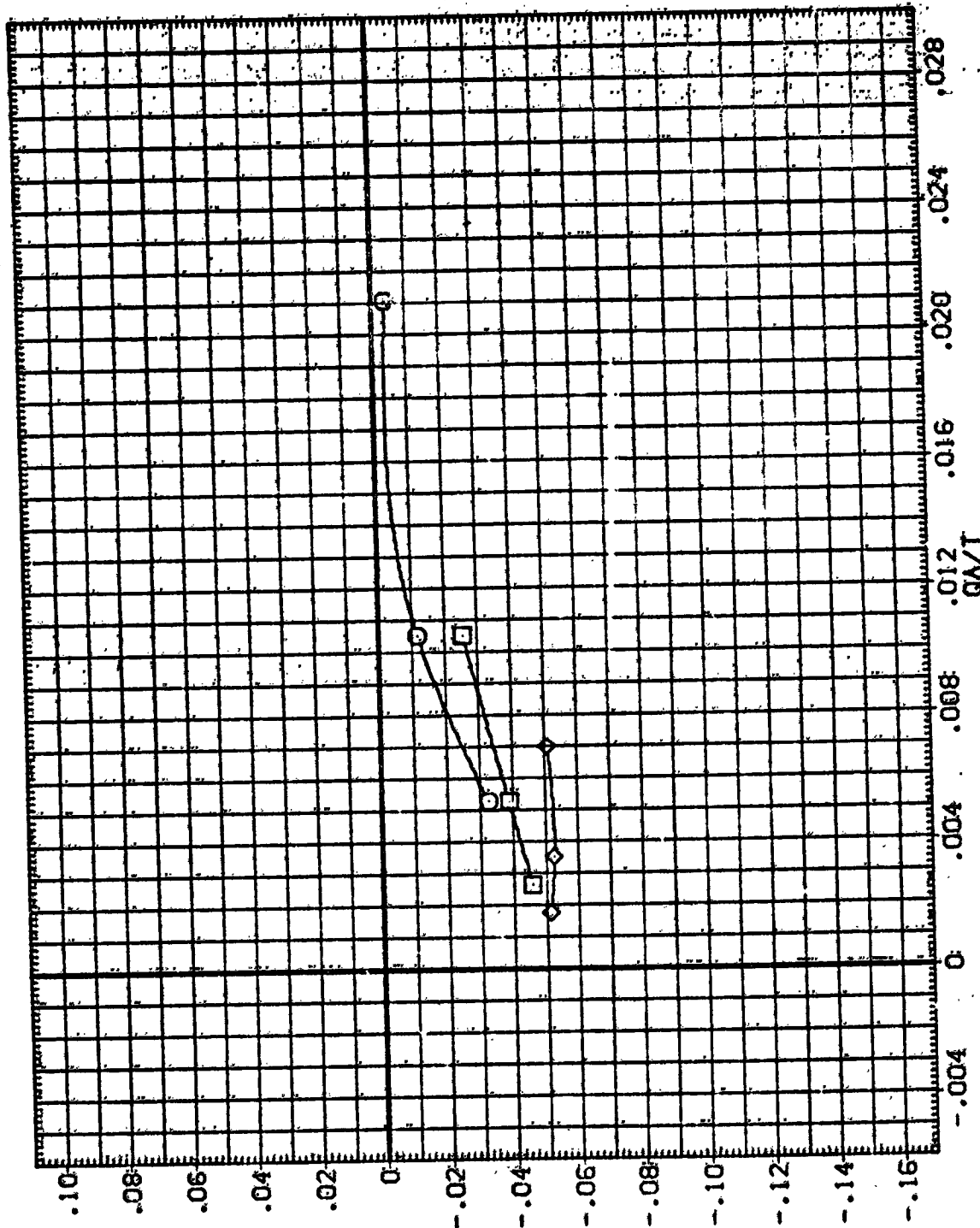


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82

(N)ALPHA = 30.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BOFLAP		BETA		REFERENCE INFORMATION	
(SIA006)	Q1N78	LARC CFHT 118 (MA-22)	.008	1.000	.000	SREF	2690.0000	50. FT.					
(SIA007)	Q1N52	LARC CFHT 118 (MA-22)	.000	2.000	.000	LREF	474.8000	INCHES					
(SIA008)	Q1N82	LARC CFHT 118 (MA-22)	.000	3.000	.000	BREF	936.6800	INCHES					
						XREF	1076.7000	IN. 20					
						YREF	.0000	IN. 70					
						ZREF	375.0000	IN. 70					
						SCALE	.0108						

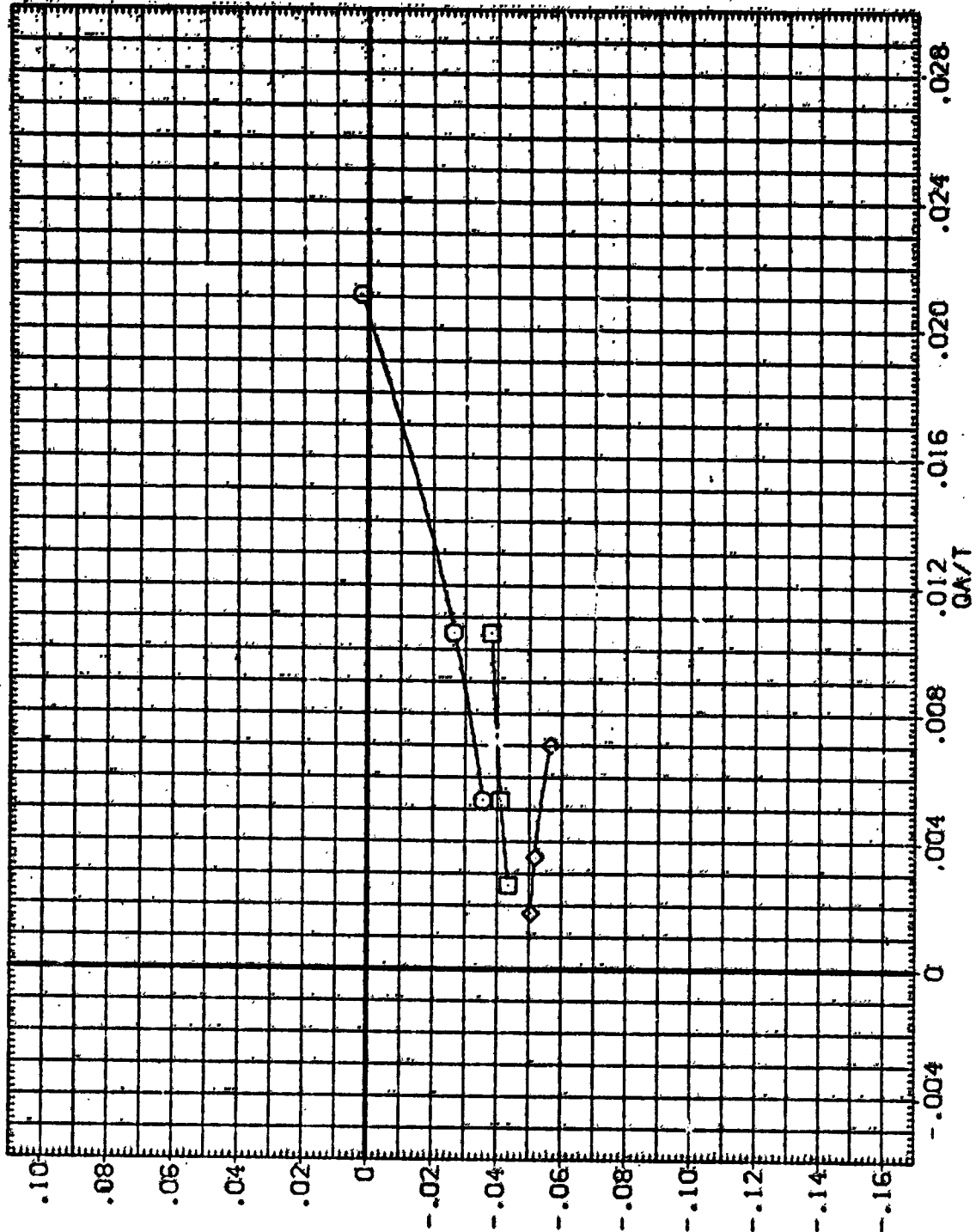


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(C) ALPHA = 35.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BDFLAP	BETA	REFERENCE INFORMATION
(SJA008)	QIN78 LARC CFHF 118 (MA-22)	.000	1.000	.000	.000	2690.0000 50.00
(SJA087)	QIN52 LARC CFHF 118 (MA-22)	.000	2.000	.000	.000	474.8000 INCHES
(SJA086)	QIN82 LARC CFHF 118 (MA-22)	.000	3.000	.000	.000	916.5000 INCHES
						1076.7000 IN. 10
						00000 IN. 12
						375.0000 IN. 20
						SCALE .0100

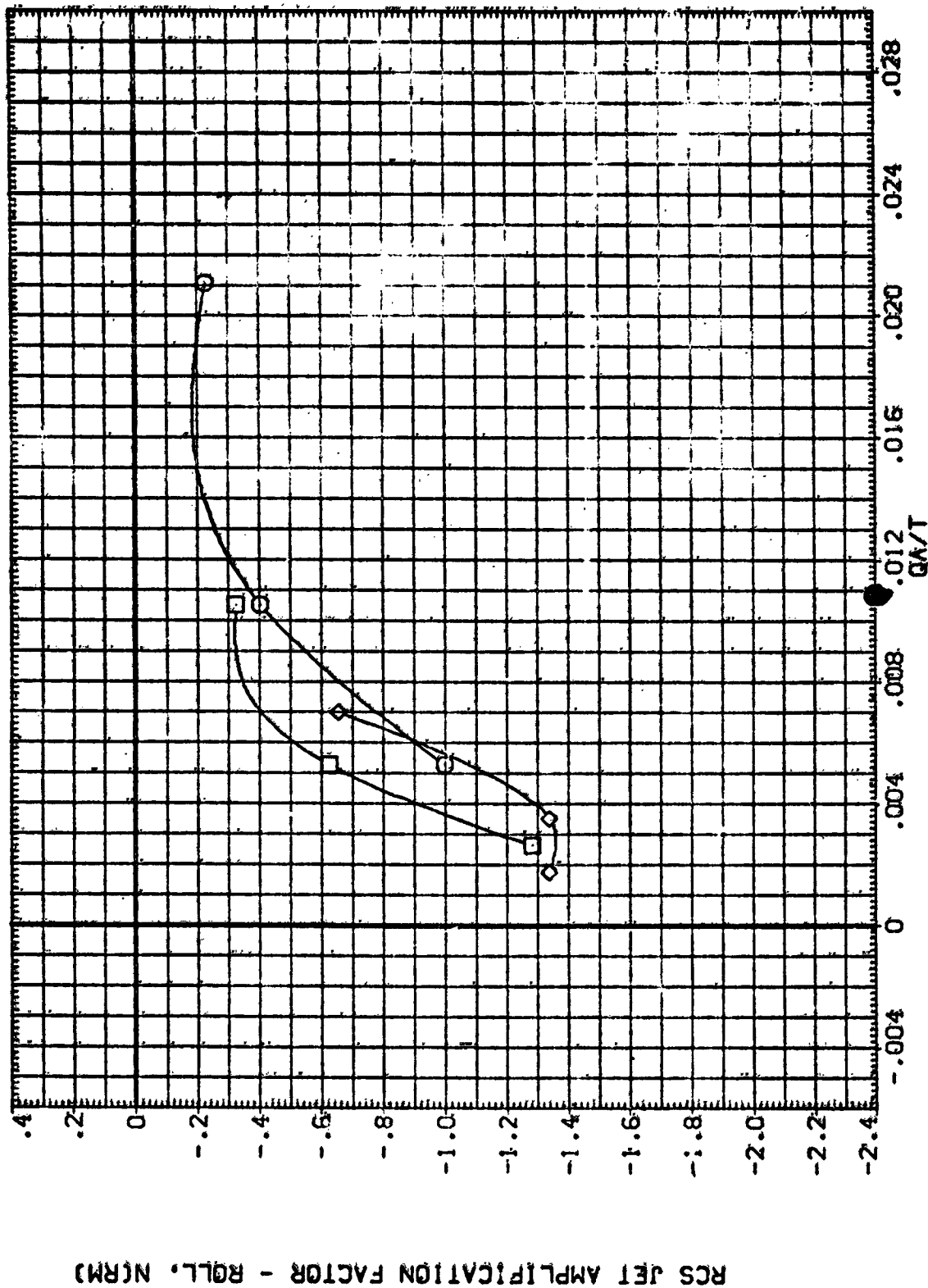


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(ALPHA = -8.00

DATA SET SYMBOL
(SIA006)
(SIA007)
(SIA008)

CONFIGURATION DESCRIPTION
Q1N78 LARC CFHT 118 (MA-22)
Q1N52 LARC CFHT 118 (MA-22)
Q1N82 LARC CFHT 118 (MA-22)

ELEVON
.000
.000
.000

NO JET
1.000
2.000
3.000

BDPLAP
.000
.000
.000

BETA
.000
.000
.000

REFERENCE INFORMATION
SREF 2690.0000 SO FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100

RCS JET AMPLIFICATION FACTOR - RQL, NCRM)

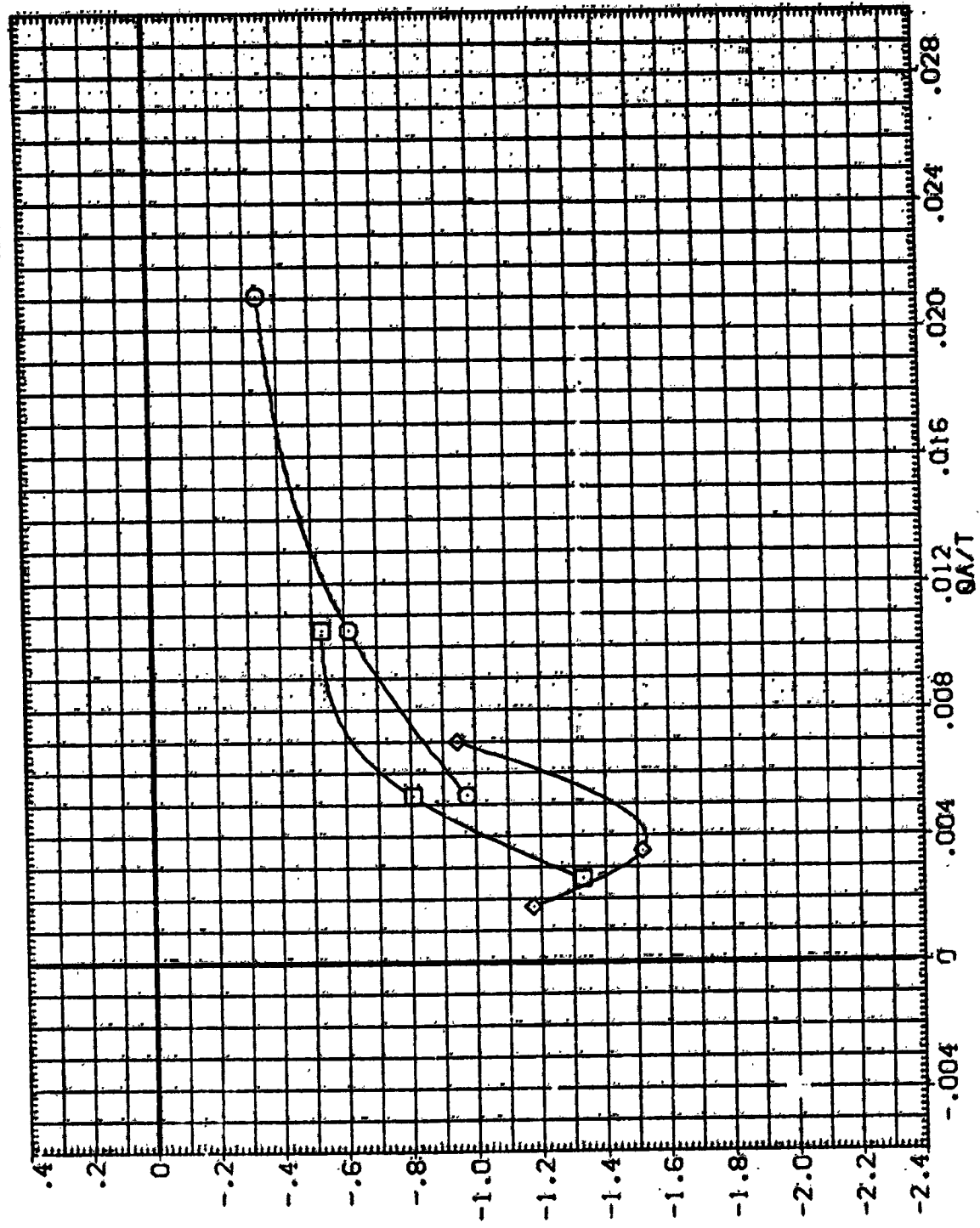


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(B) ALPHA = -6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) 01N78 LARC CFMT 118 (MA-22)
 (SJA007) 01N52 LARC CFMT 118 (MA-22)
 (SJA008) 01N82 LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION
 SREF 2630.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 935.5800 INCHES
 XREF 1076.7000 IN. X0
 YREF 375.0000 IN. Y0
 ZREF .0100 IN. Z0
 SCALE

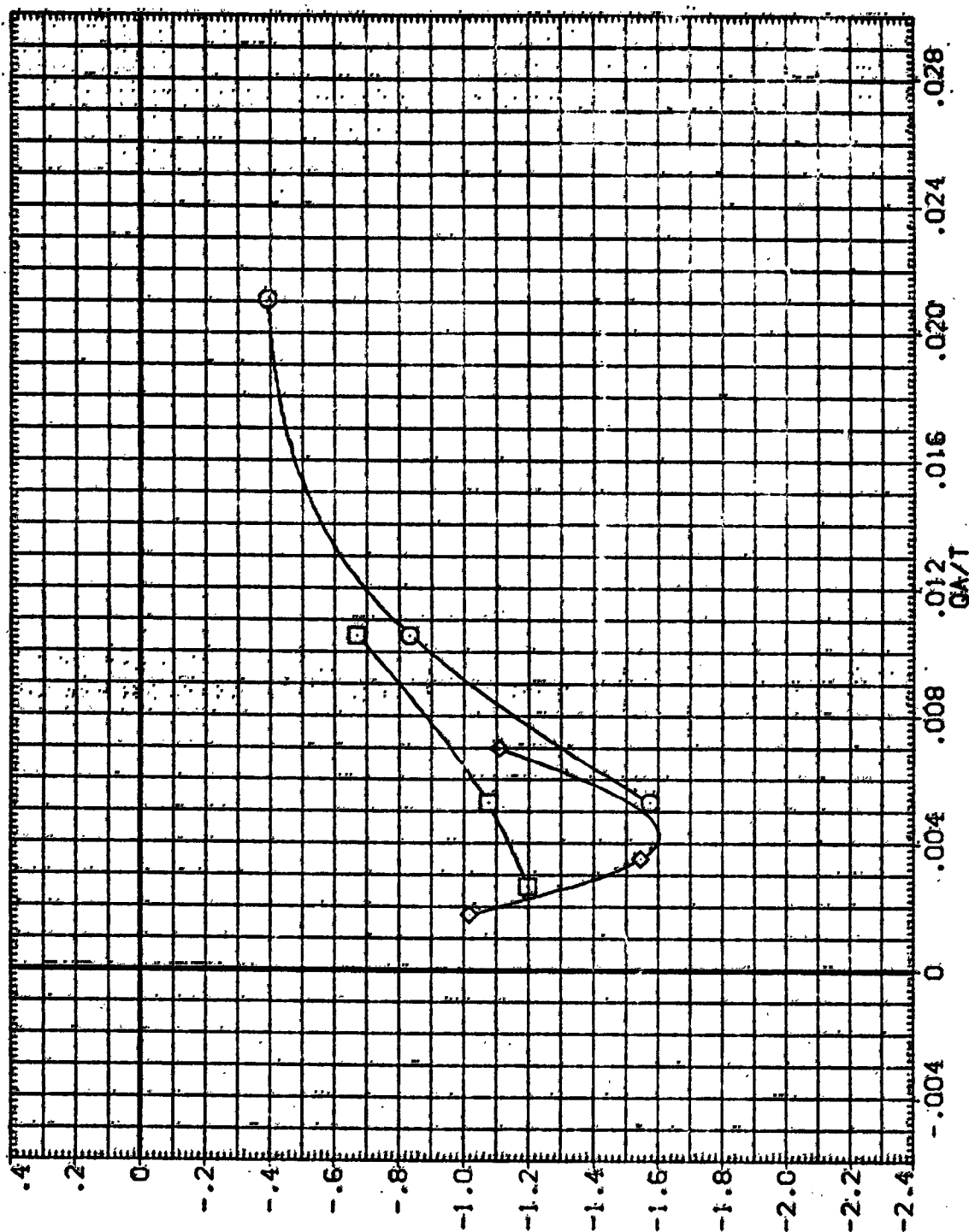


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(C)ALPHA = -4.00

DATA SET SYMBOL	QIN78	QIN52	QIN82	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJ4006)	LARC CFHT 118 (FA-22)	LARC CFHT 118 (FA-22)	LARC CFHT 118 (FA-22)		.000	1.000	.000	.000	SREF 2590.0000 INCHES
(SJ4006)	LARC CFHT 118 (FA-22)	LARC CFHT 118 (FA-22)	LARC CFHT 118 (FA-22)		.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJ4006)	LARC CFHT 118 (FA-22)	LARC CFHT 118 (FA-22)	LARC CFHT 118 (FA-22)		.000	3.000	.000	.000	BREF 936.6000 INCHES
									XREF 1076.7000 INCHES
									YREF .0000 INCHES
									ZREF 395.0000 INCHES
									SCALE .0100

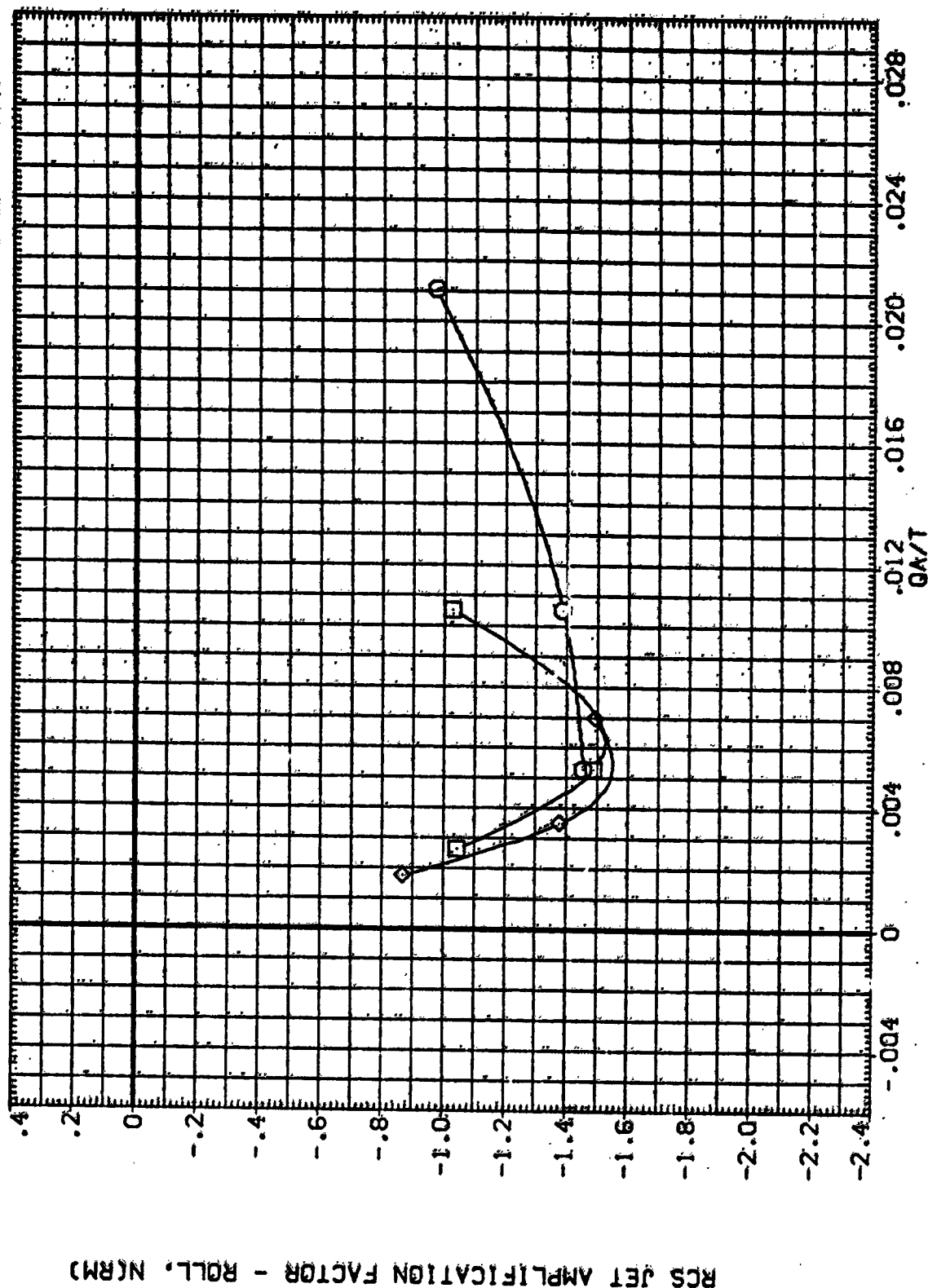


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(D)ALPHA = -2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) Q1N78 LARC CFHT 118 (MA-22)
 (SJA007) Q1N52 LARC CFHT 118 (MA-22)
 (SJA008) Q1N82 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION
 .000 .000 .000 SREF 2690.0000 SQ. FT.
 .000 .000 .000 LREF 474.8000 INCHES
 .000 .000 .000 BREF 936.6800 INCHES
 .000 .000 .000 XMRP 1076.7000 IN. XG
 .000 .000 .000 YMRP 375.0000 IN. YG
 .000 .000 .000 ZMRP 375.0000 IN. ZG
 .000 .000 .000 SCALE .0160

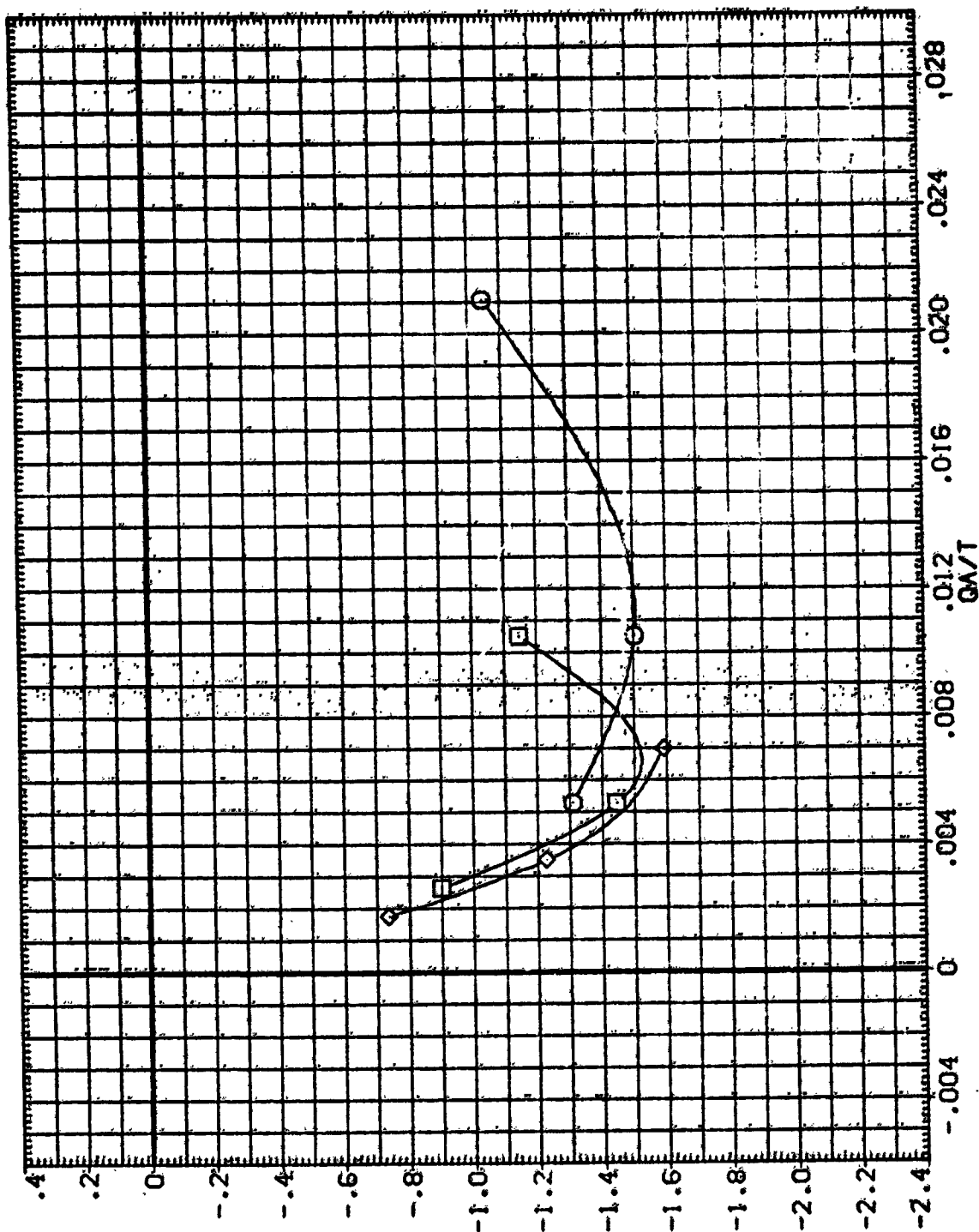


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(E)ALPHA = .00

DATA SET SYMBOL	Q1N78	Q1N52	Q1N82	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOT LAR	BETA	REFERENCE INFORMATION
(S1A006)	LARC CFHJ 118 (MA-22)				.000	1.000	.000	.000	SREF 2690.0000 INCHES
(S1A007)	LARC CFHJ 118 (MA-22)				.000	2.000	.000	.000	LREF 474.8000 INCHES
(S1A008)	LARC CFHJ 118 (MA-22)				.000	3.000	.000	.000	BREF 936.6000 INCHES
									XREF 1076.7000 IN. X0
									YREF .0000 IN. Y0
									ZREF 375.0000 IN. Z0
									SCALE .0100

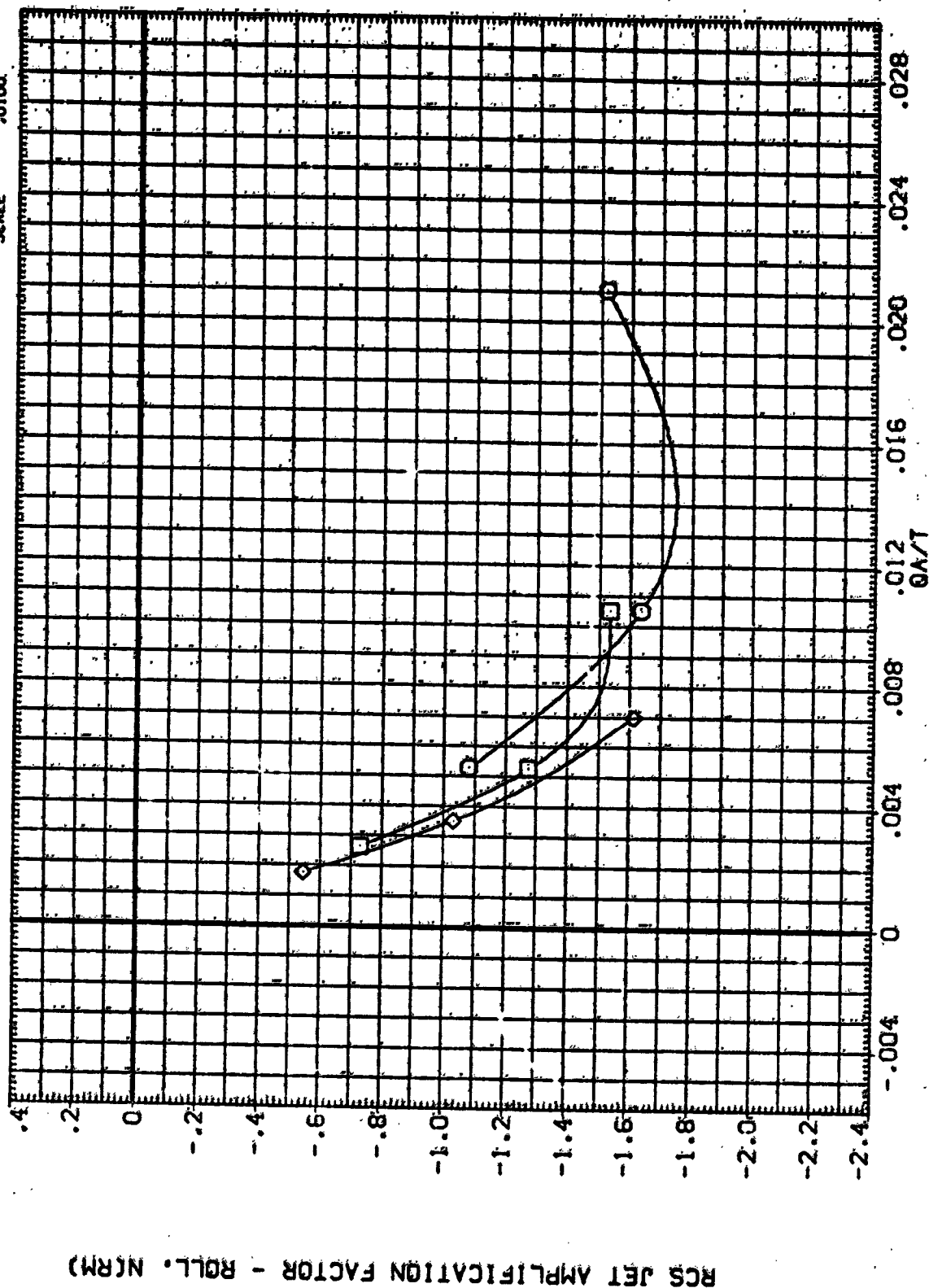


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78,N52,N82

(F)ALPHA = 2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) QIN78 LARC CFHT 118 (MA-22)
 (SJA007) QIN52 LARC CFHT 118 (MA-22)
 (SJA008) QIN82 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2690.0000 SQ. FT.
 .000 2.000 .000 LREF 474.3000 INCHES
 .000 3.000 .000 BREF 506.5800 INCHES
 .000 .0000 .0000 XMRP 1076.7000 IN. X0
 .0000 .0000 .0000 YMRP .0000 IN. Y0
 .0000 .0000 .0000 ZMRP 325.0000 IN. Z0
 SCALE .0100

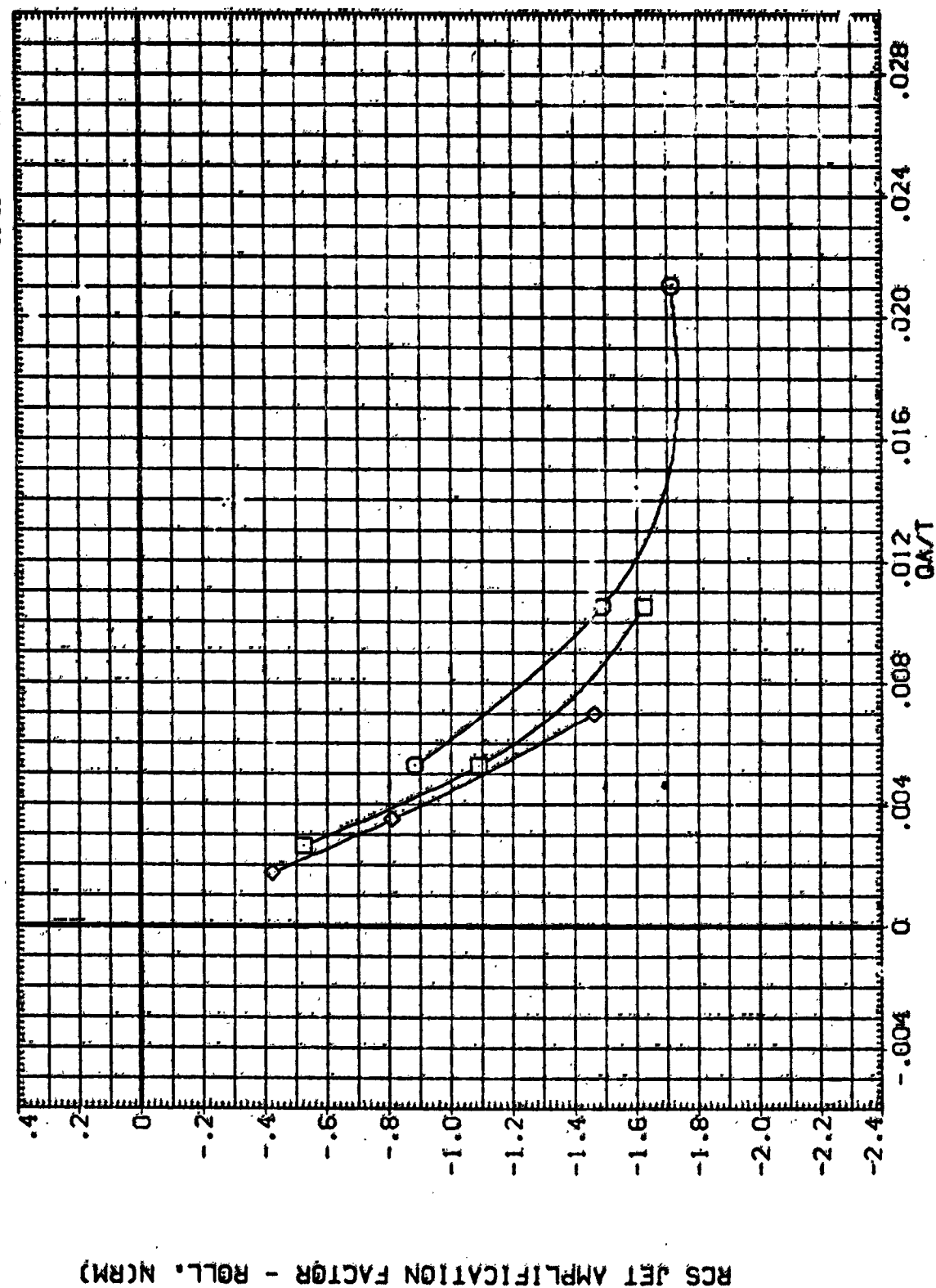


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(G) ALPHA = 4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJ0008) QIN98 LARC CPMT 118 (MA-22)
 (SJ0007) QIN52 LARC CPMT 118 (MA-22)
 (SJ0006) QIN82 LARC CPMT 118 (MA-22)

ELEVON NO. JET BDRAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2650.0000 SO. FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 BREF 936.6800 INCHES
 .000 .000 .000 XMRP 1076.7000 IN. X
 .000 .000 .000 YMRP 375.0000 IN. Y
 .000 .000 .000 ZMRP 375.0000 IN. Z
 .000 .000 .000 SCALE .0100

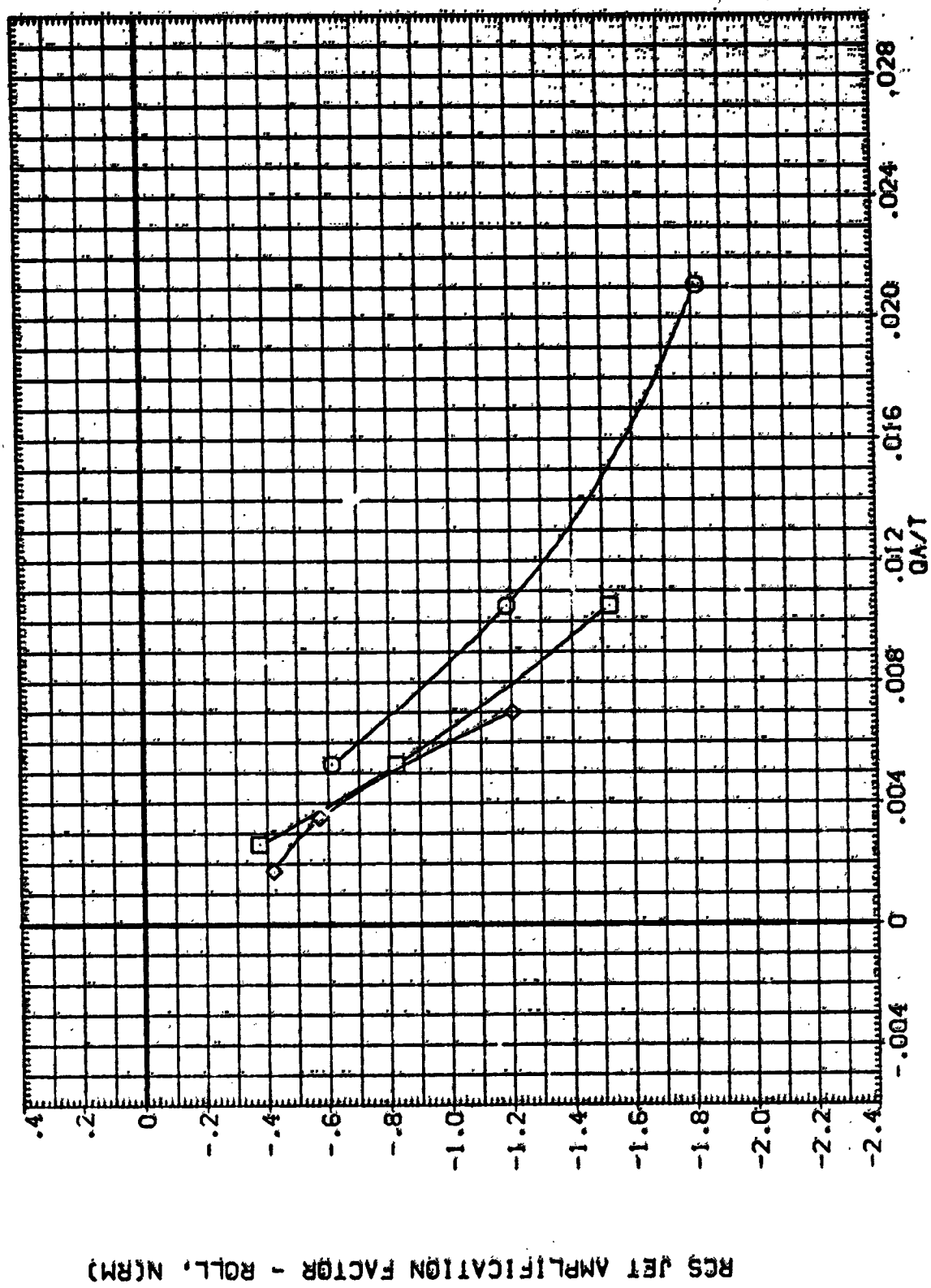


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78.N52.N82

(H)ALPHA = 6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SIA006) Q1N78 LARC CFMT 118 CMA-221
 (SIA007) Q1N52 LARC CFMT 118 CMA-221
 (SIA008) Q1N82 LARC CFMT 118 CMA-221

ELEVON NO. JET BDFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2690.0000 50. FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 .000 3.600 .090 XREF 936.6800 INCHES
 YREF 1076.7000 IN. NO
 ZREF 30000 IN. VO
 SCALE 375.0000 IN. ZO
 .0100

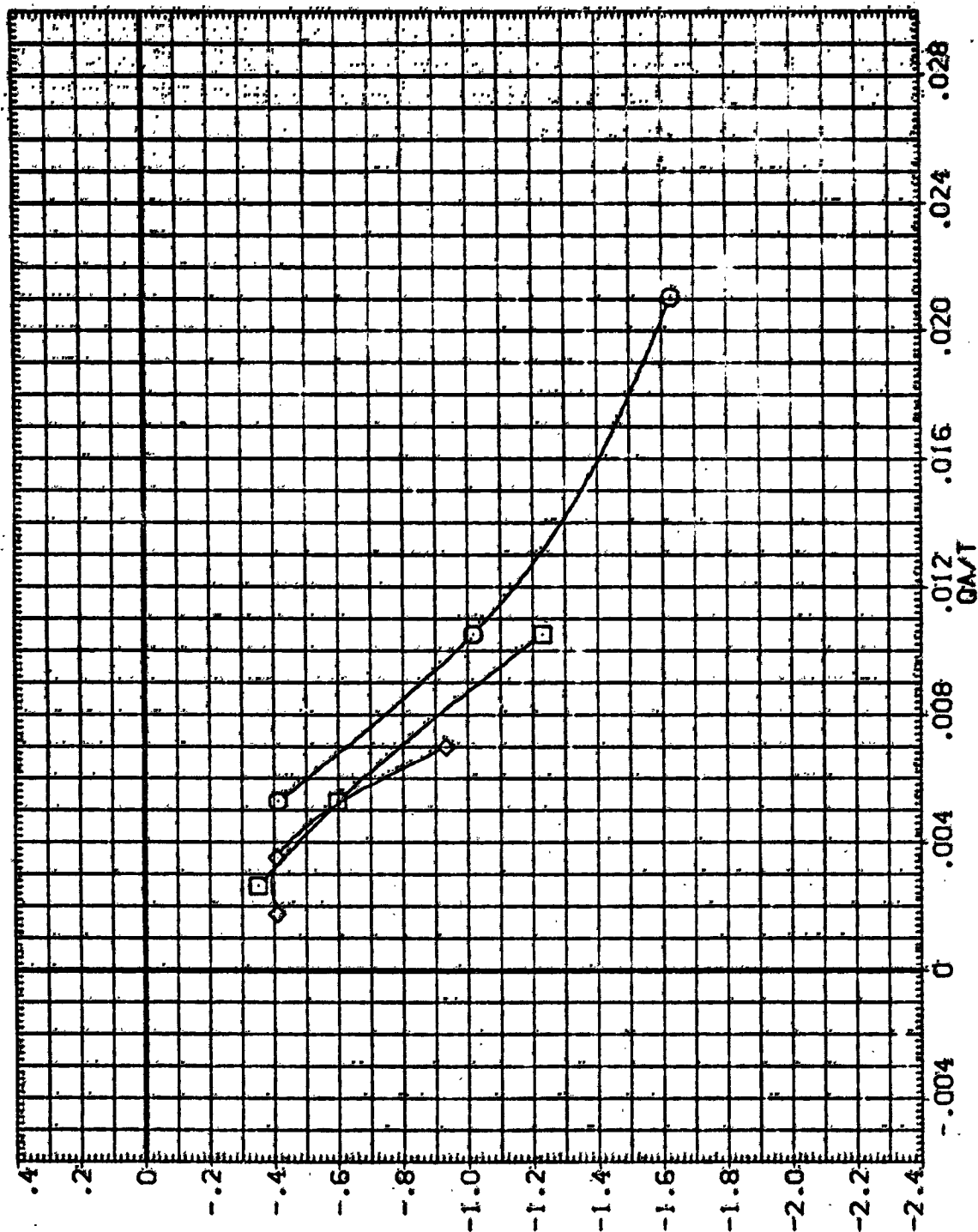
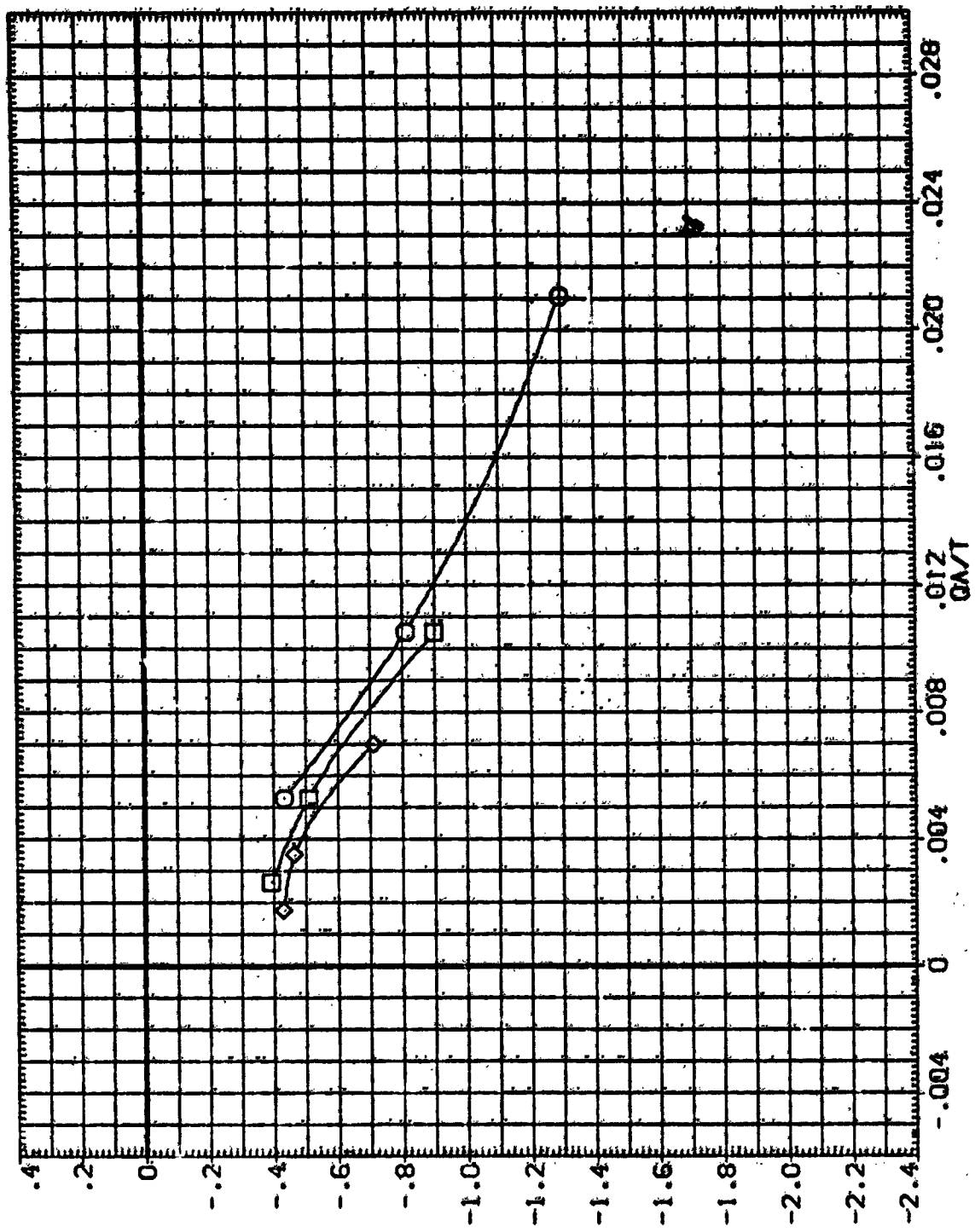


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78.N52.N82

(ALPHA = 8.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BDF LAP		BETA		REFERENCE INFORMATION	
(SJA006)	Q1N78	LARC CPMT 118	Q1A-223	.000	.000	1.000	.000	.000	.000	SREF	2690.0000	SO.FT.	
(SJA007)	Q1N52	LARC CPMT 118	Q1A-223	.000	.000	2.000	.000	.000	.000	LREF	474.8000	INCHES	
(SJA008)	Q1N82	LARC CPMT 118	Q1A-223	.000	.000	3.000	.000	.000	.000	BREF	938.6880	INCHES	
										XREF	1076.7000	IN. YD	
										YREF	375.0000	IN. YD	
										ZREF	375.0000	IN. YD	
										SCALE	.0100		



RCS JET AMPLIFICATION FACTOR - ROLL, NCRM

FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(JJ)ALPHA = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJAD06)	LARC CFM 118 (MA-22)	.000	1.000	.000	.000	REF 2690.0000
(SJAD07)	LARC CFM 118 (MA-22)	.000	2.000	.000	.000	REF 424.8930
(SJAD08)	LARC CFM 118 (MA-22)	.000	3.000	.000	.000	REF 936.8930
						REF 10.7600
						REF .0000
						REF 375.0000
						REF .0000

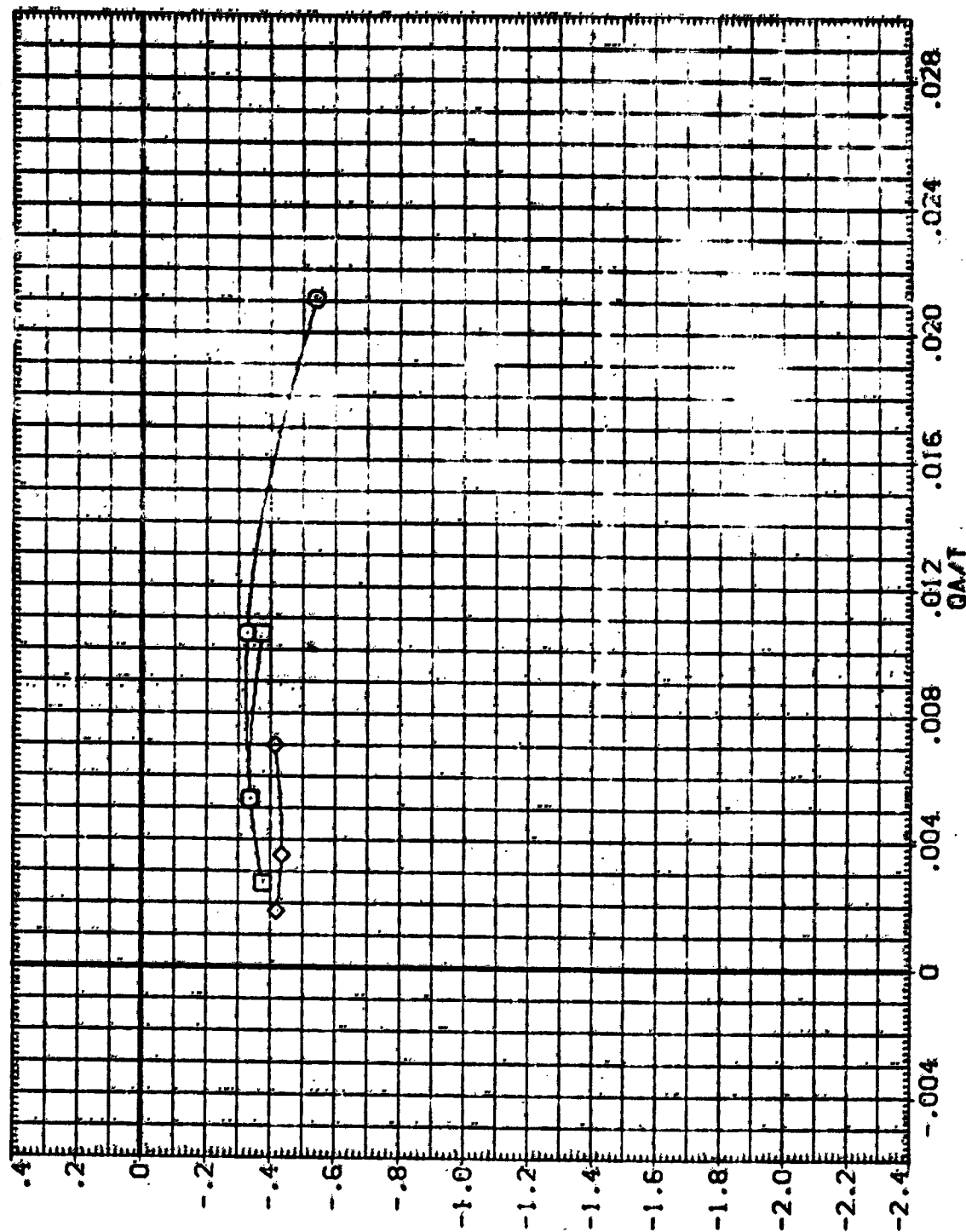


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78.N52.N82

(K)ALPHA = 15.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVON NO. JET BDPLAP BETA REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BDPLAP	BETA	REFERENCE INFORMATION
(SJAC08.1)	QIN78 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	SREF 1690.0000 SO.FT.
(SJAC007)	QIN52 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJAC08.1)	QIN82 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	GREF 936.6000 INCHES
						XREF 1076.7000 IN. 10
						YREF .0000 IN. 10
						ZREF .0000 IN. 20
						SCALE .0100

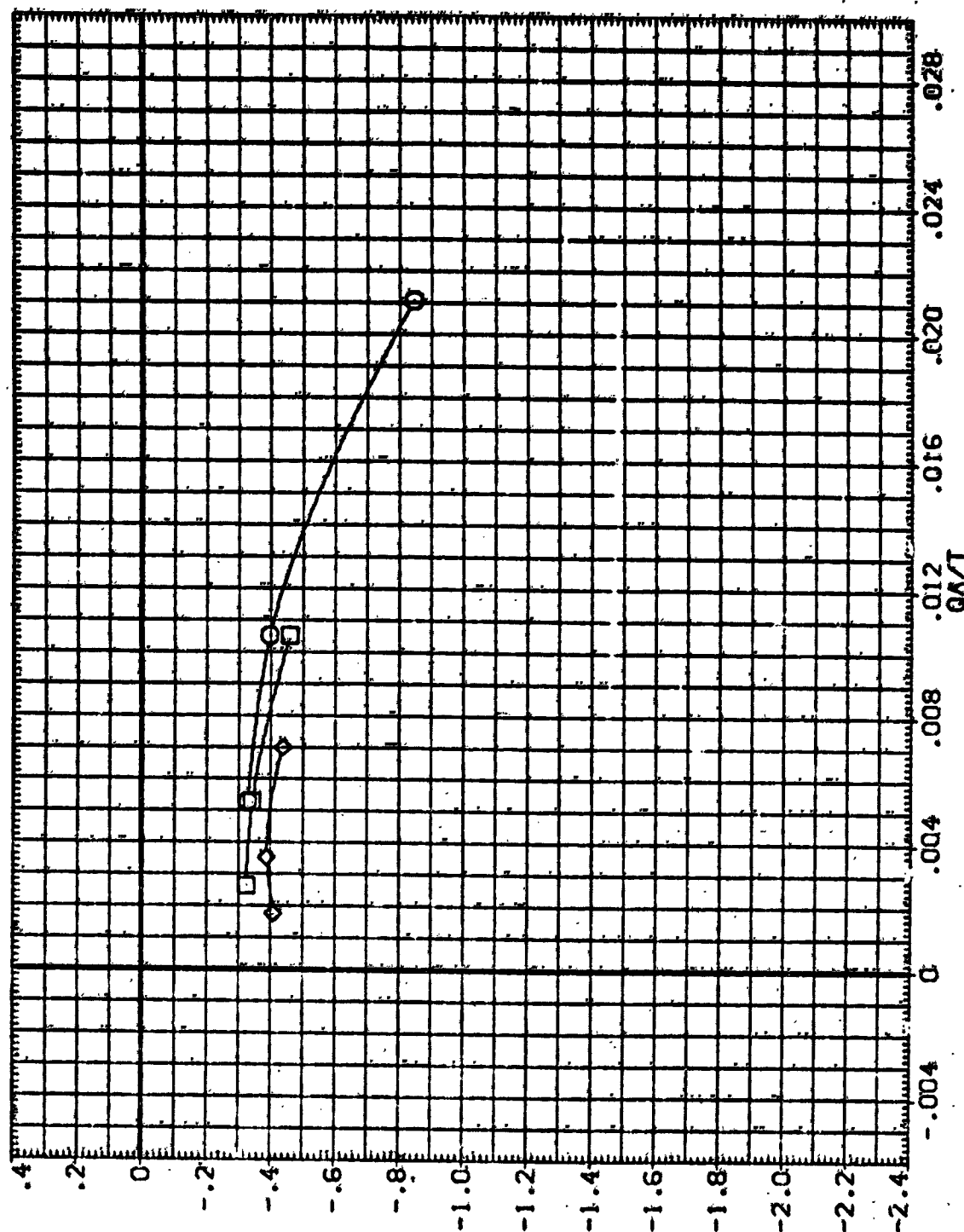


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82

(L) ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(S1A005)	GEN78 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	SREF 2650.0000 50.00
(S1A007)	GEN52 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8800 INC 65
(S1A008)	GEN82 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	DREF 905.0000 INC 55
						XREF 1076.0000 IN. 20
						YREF .0000 IN. 00
						ZREF 375.0000 IN. 20
						SCALE .0100

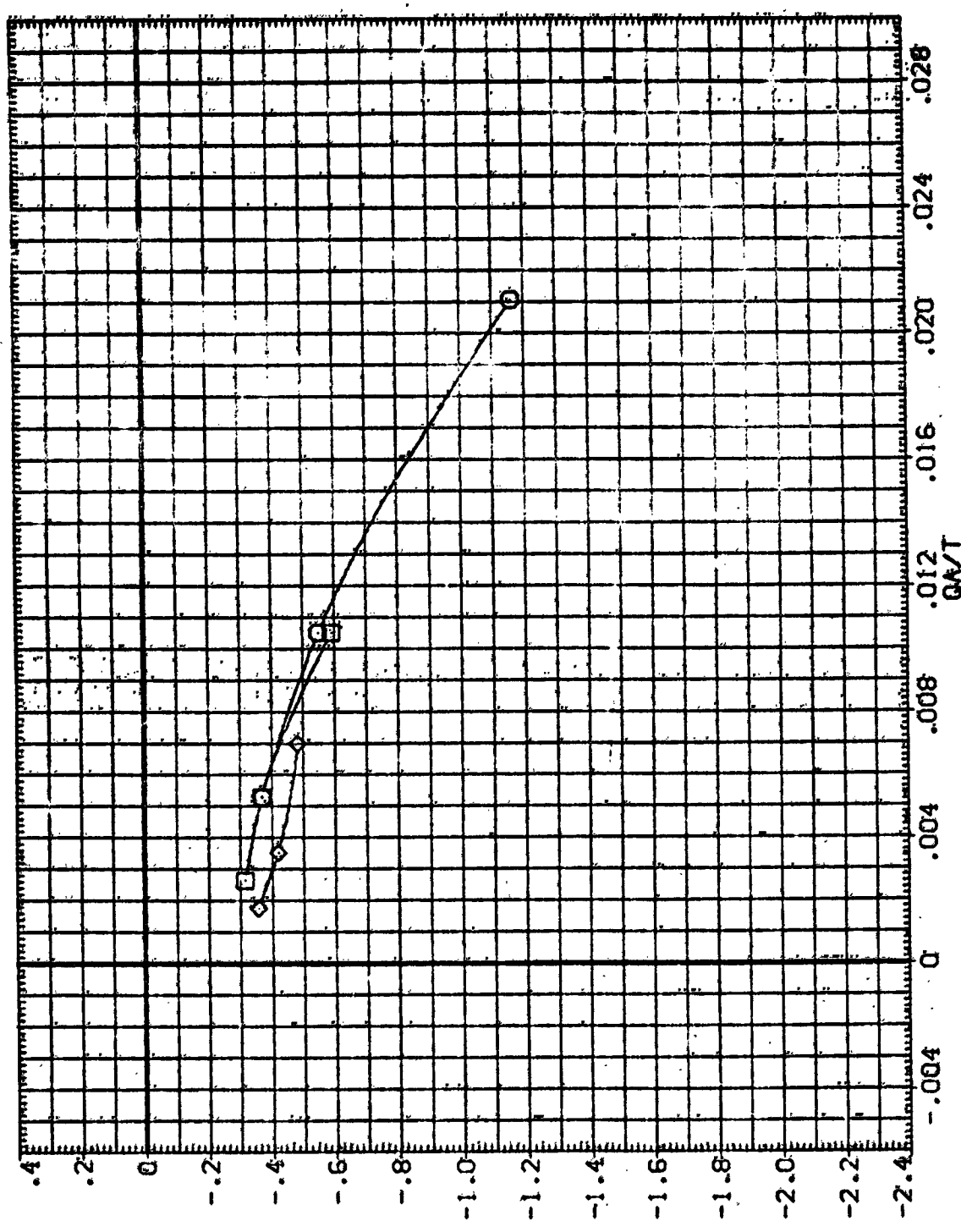


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(M)ALPHA = 25.00

DATA SET SYMBOL
(SJA006)
(SJA007)
(SJA008)

CONFIGURATION DESCRIPTION
QIN28 LARC CFMT 118 (NA-22)
QIN52 LARC CFMT 118 (NA-22)
QIN82 LARC CFMT 118 (NA-22)

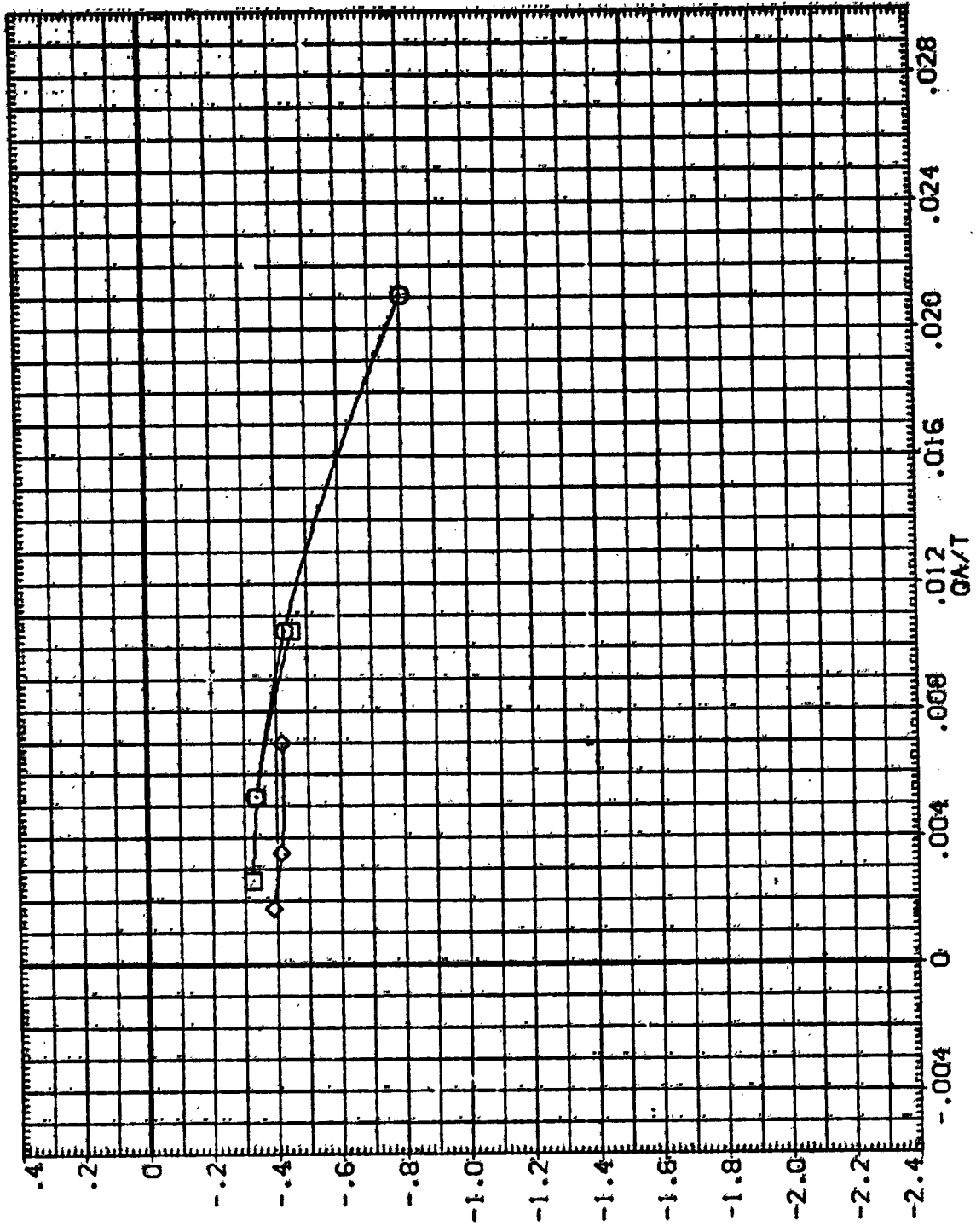
ELEVON
.000
.000
.000

NO. JET
1.000
2.000
3.000

BOFLAP
.000
.000
.000

BETA
.000
.000
.000

REFERENCE INFORMATION
SREF 2690.0000 SO. FT.
LREF 474.8000 INCHES
BREF 936.8000 INCHES
XMRP 1076.7000 IN. YD
YMRP 375.0000 IN. YD
SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, NRM

FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(N)ALPHA = 30.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO JET		BOFLAP		BETA		REFERENCE INFORMATION	
(SJA006)	Q1N78	LARC CFHT 118 (MA-22)		.000	1.000	.000		.000		SREF	2690.0000	50.00	INCHES
(SJA007)	Q1N52	LARC CFHT 118 (MA-22)		.000	2.000	.000		.000		LREF	474.8000	10.00	INCHES
(SJA008)	Q1N82	LARC CFHT 118 (MA-22)		.000	3.000	.000		.000		SREF	936.6880	10.00	INCHES
										XMRP	1076.7000	10.00	INCHES
										YMRP	0.0000	10.00	INCHES
										ZMRP	375.0000	10.00	INCHES
										SCALE	.0100		

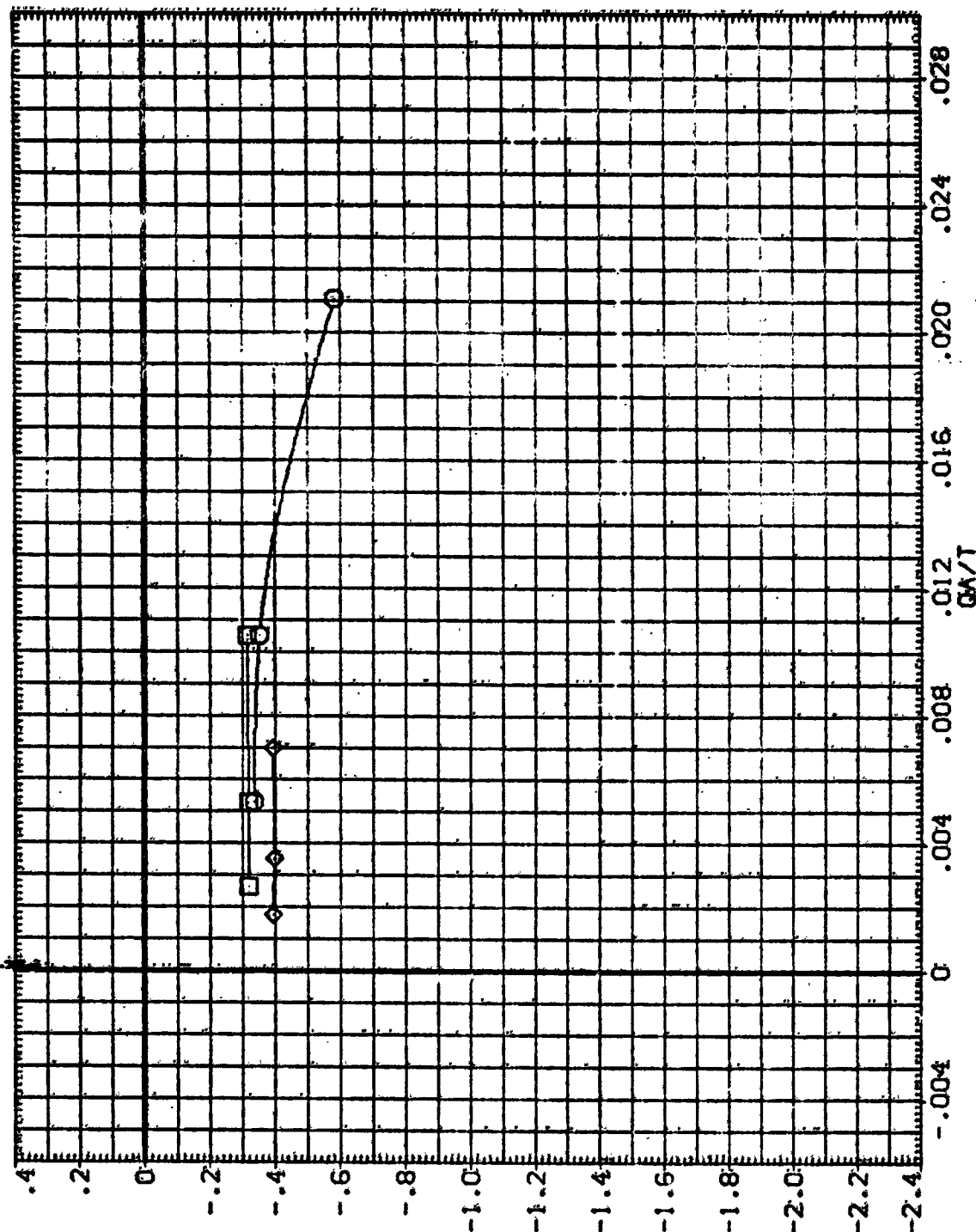


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(O)ALPHA = 35.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJAD006)	QJN78 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 SO. FT.
(SJAD007)	QJN52 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJAD008)	QJN82 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6800 INCHES
						XMRP 1076.7000 IN. X0
						YMRP .0000 IN. Y0
						ZMRP 375.0000 IN. Z0
						SCALE .0100

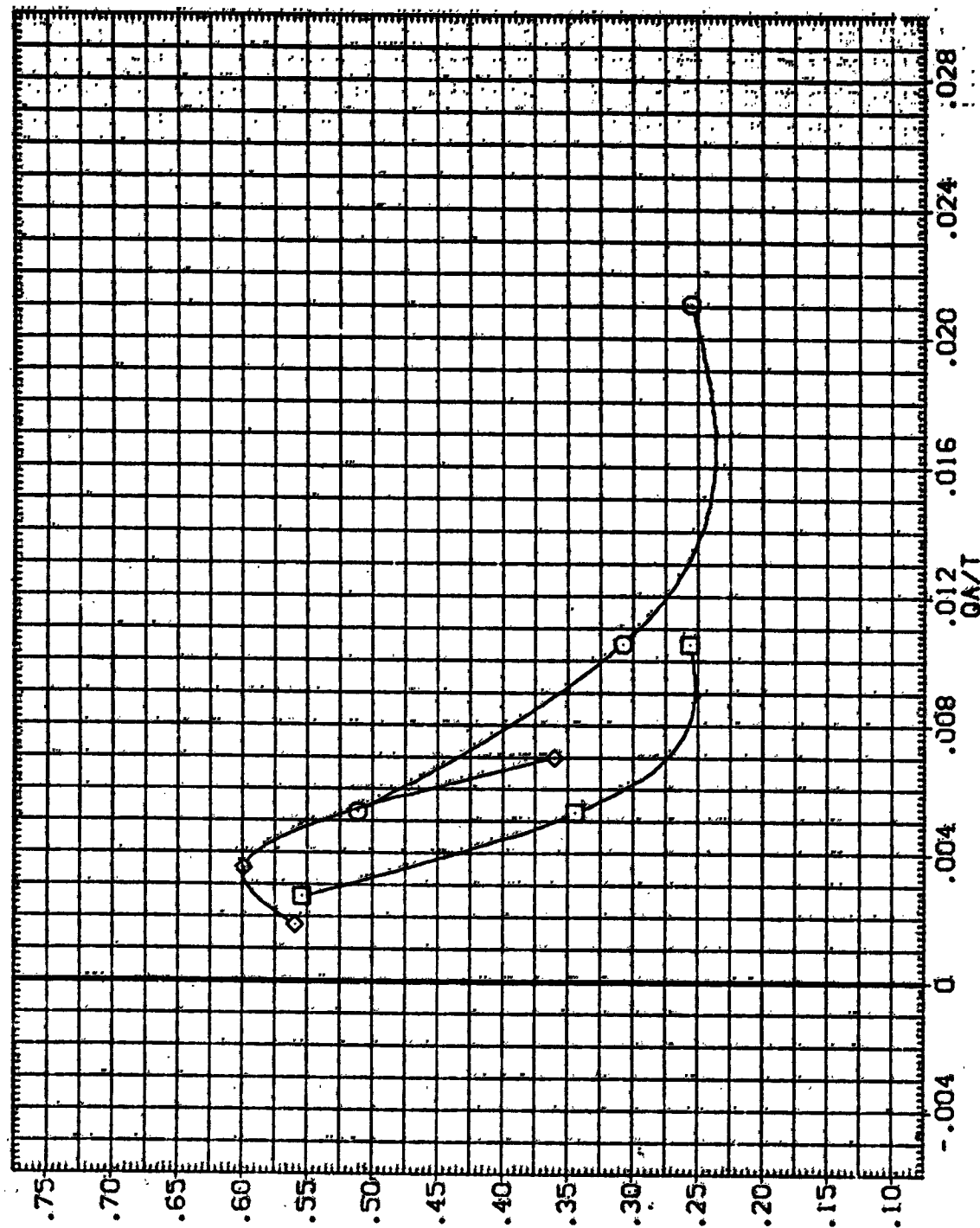


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(A) ALPHA = -8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(SJ4006)	LARC CFHT 118 (MA-22)
(SJ4007)	LARC CFHT 118 (MA-22)
(SJ4008)	LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA

ELEVON	NO. JET	BOFLAP	BETA
.000	1.000	.000	.000
.000	2.000	.000	.000
.000	3.000	.000	.000

REFERENCE INFORMATION

REFERENCE INFORMATION	50 FT. INCHES
SREF	2690.0000
LREF	474.9000
BREF	936.8000
XRRP	1076.7000
YRRP	9000.0000
ZRRP	375.0000
SCALE	.0100

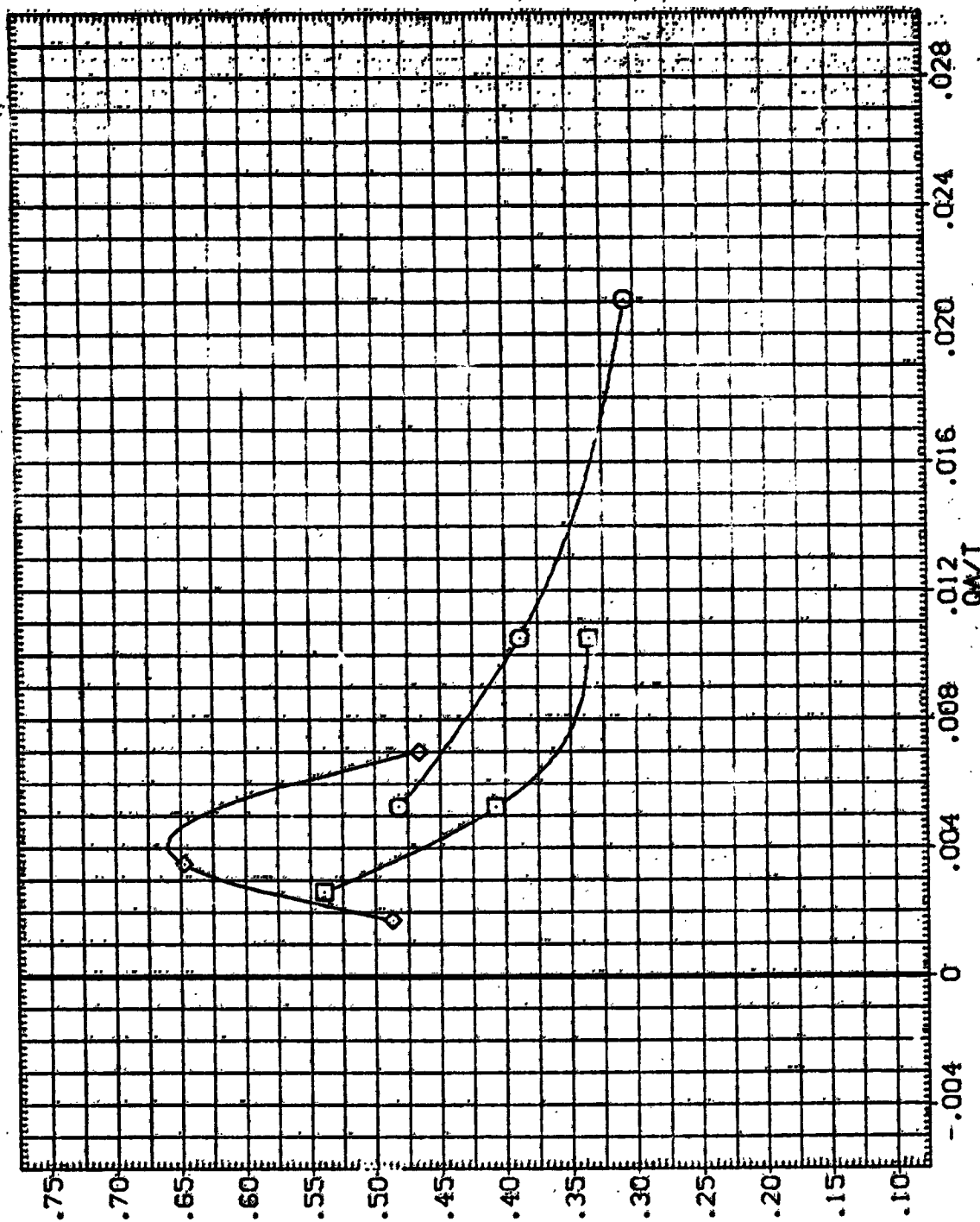


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(B) ALPHA = -6.00

DATA SET SYMBOL
(SJA006)
(SJA007)
(SJA008)

CONFIGURATION DESCRIPTION
Q1N78 LARC CFHT 118 (MA-22)
Q1N52 LARC CFHT 118 (MA-22)
Q1N82 LARC CFHT 118 (MA-22)

ELEVON
.000
.000
.000

NO. JET
1.000
2.000
3.000

BOFLAP
.000
.000
.000

BETA
.000
.000
.000

REFERENCE INFORMATION
SREF 2690.0000 SQ. FT.
LREF 474.8800 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. XE
YMRP 0000 IN. YE
ZMRP 375.0000 IN. ZE
SCALE .0100

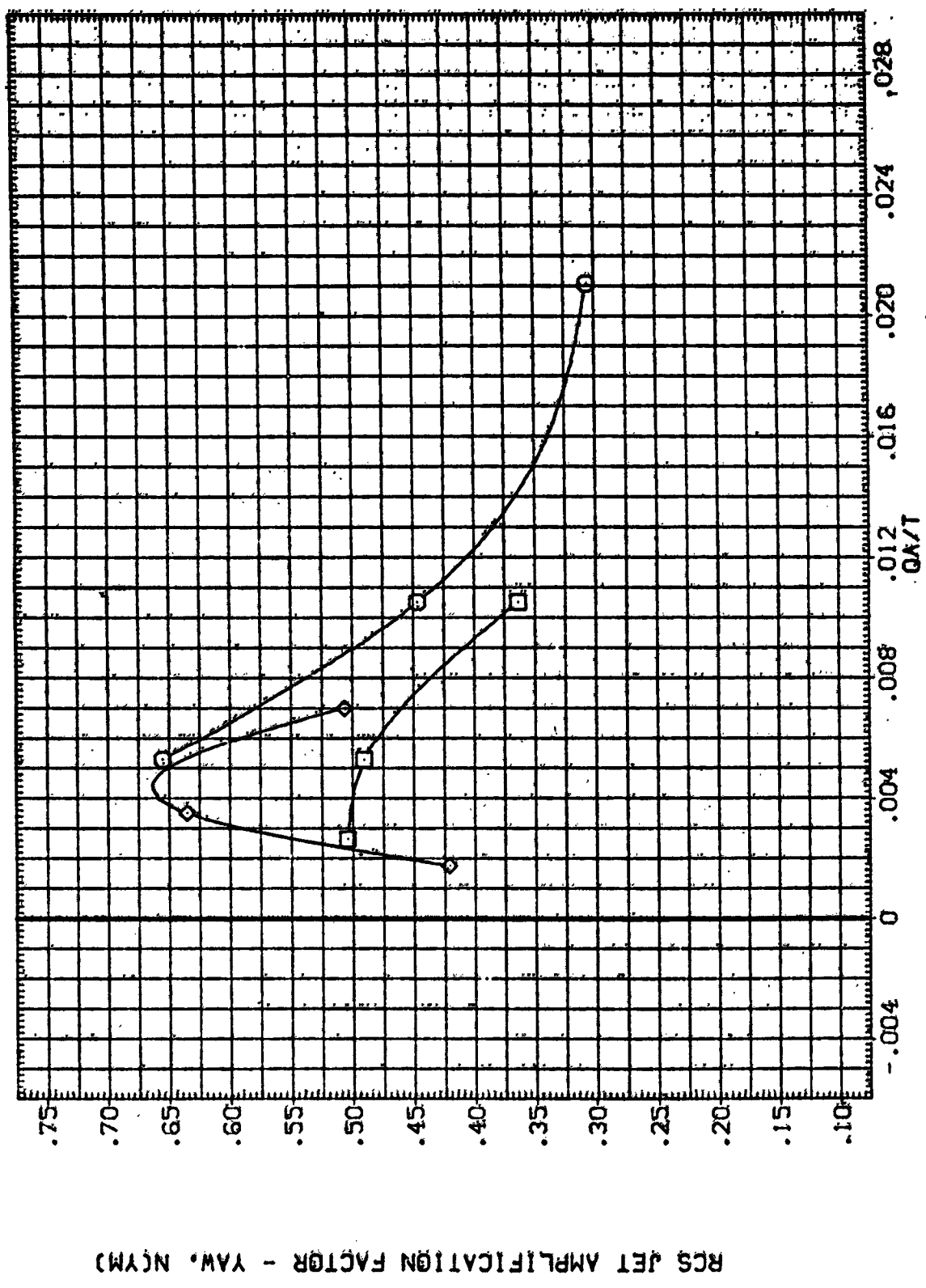


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82

(CTALPHA = -4.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOTLAP	BETA	REFERENCE INFORMATION
(SJA006)	LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 50.00
(SJA007)	LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 10.00
(SJA008)	LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6800 10.00
						XMRP 1076.7000 10.00
						YMRP .0000 10.00
						ZMRP 373.0000 10.00
						SCALE .0100

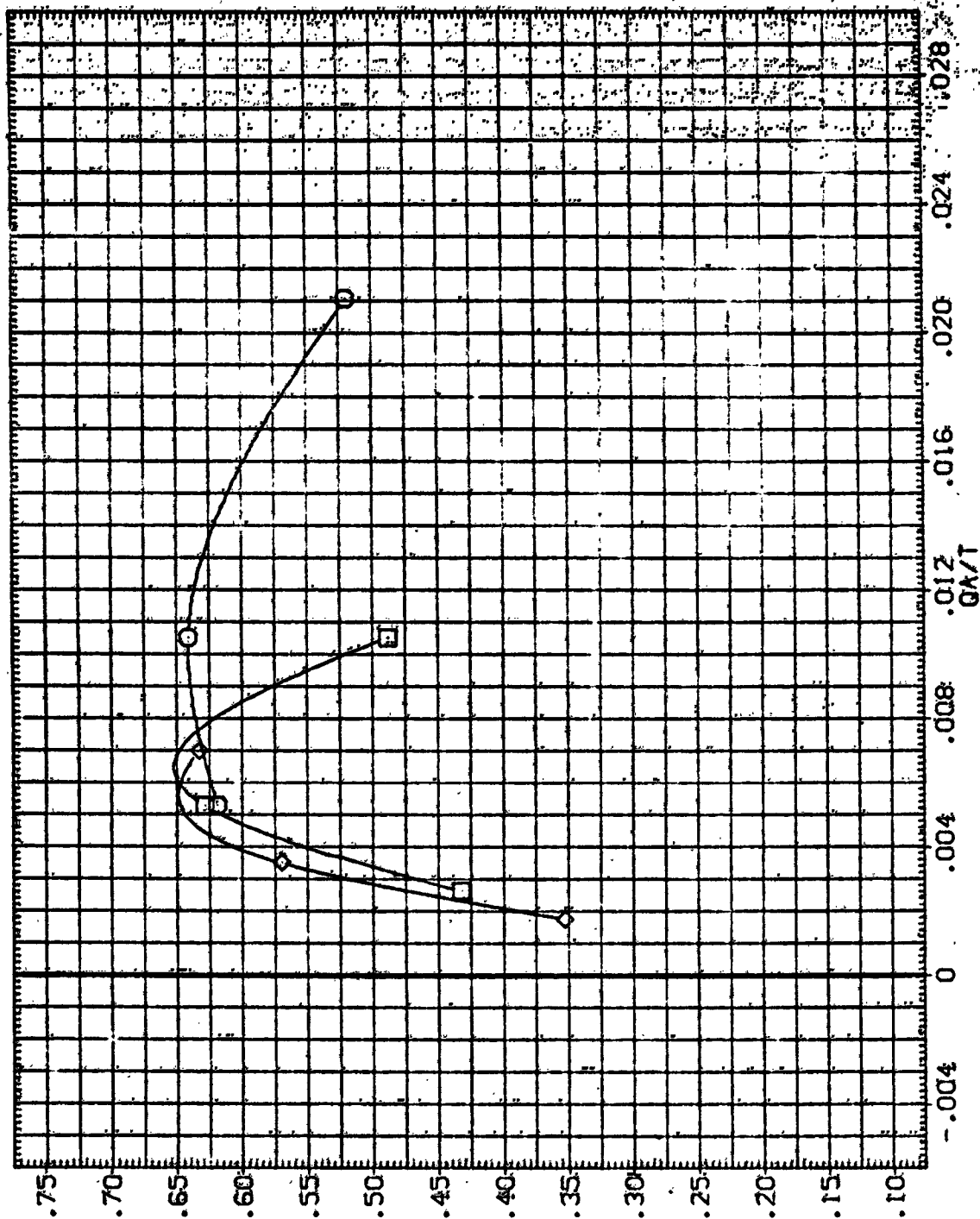
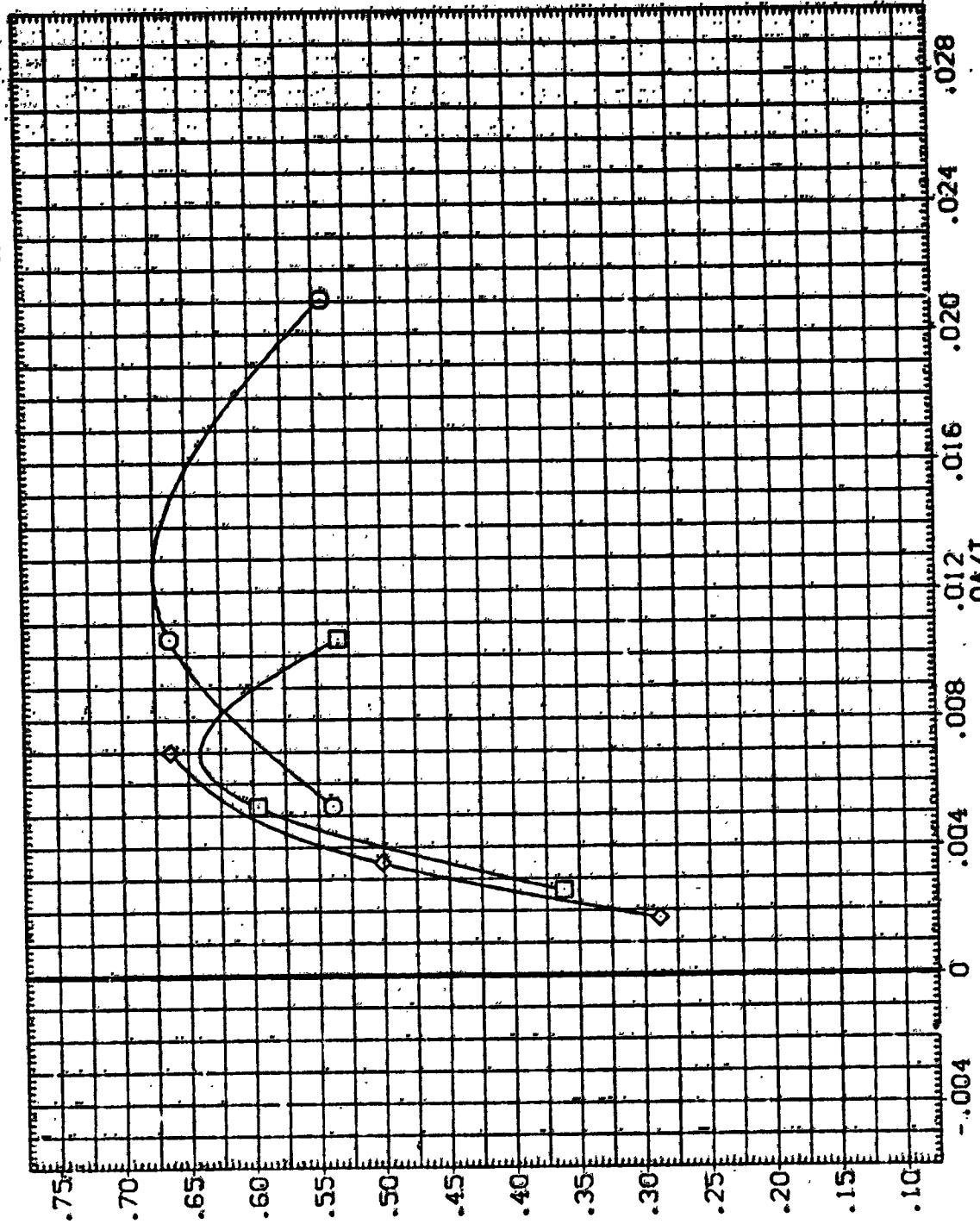


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(C) ALPHA = -2.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA006)	LARC CFHT 118 (NA-22)	.000	1.000	.000	.000	SREF 2690.0000 50 FT.
(SJA007)	LARC CFHT 118 (NA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(SJA008)	LARC CFHT 118 (NA-22)	.000	3.000	.000	.000	BREF 936.6000 INCHES
						XRRP 1076.7000 IN. X0
						YRRP .0000 IN. Y0
						ZRRP .0000 IN. Z0
						SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, N(YM)

FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(E) ALPHA = .00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SIA006) 01N78 LARC CFMT 118 (MA-22)
 (SIA007) 01N52 LARC CFMT 118 (MA-22)
 (SIA008) 01N82 LARC CFMT 118 (MA-22)

ELEVON NO. JET BD FLAP BETA
 .000 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 S2 FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

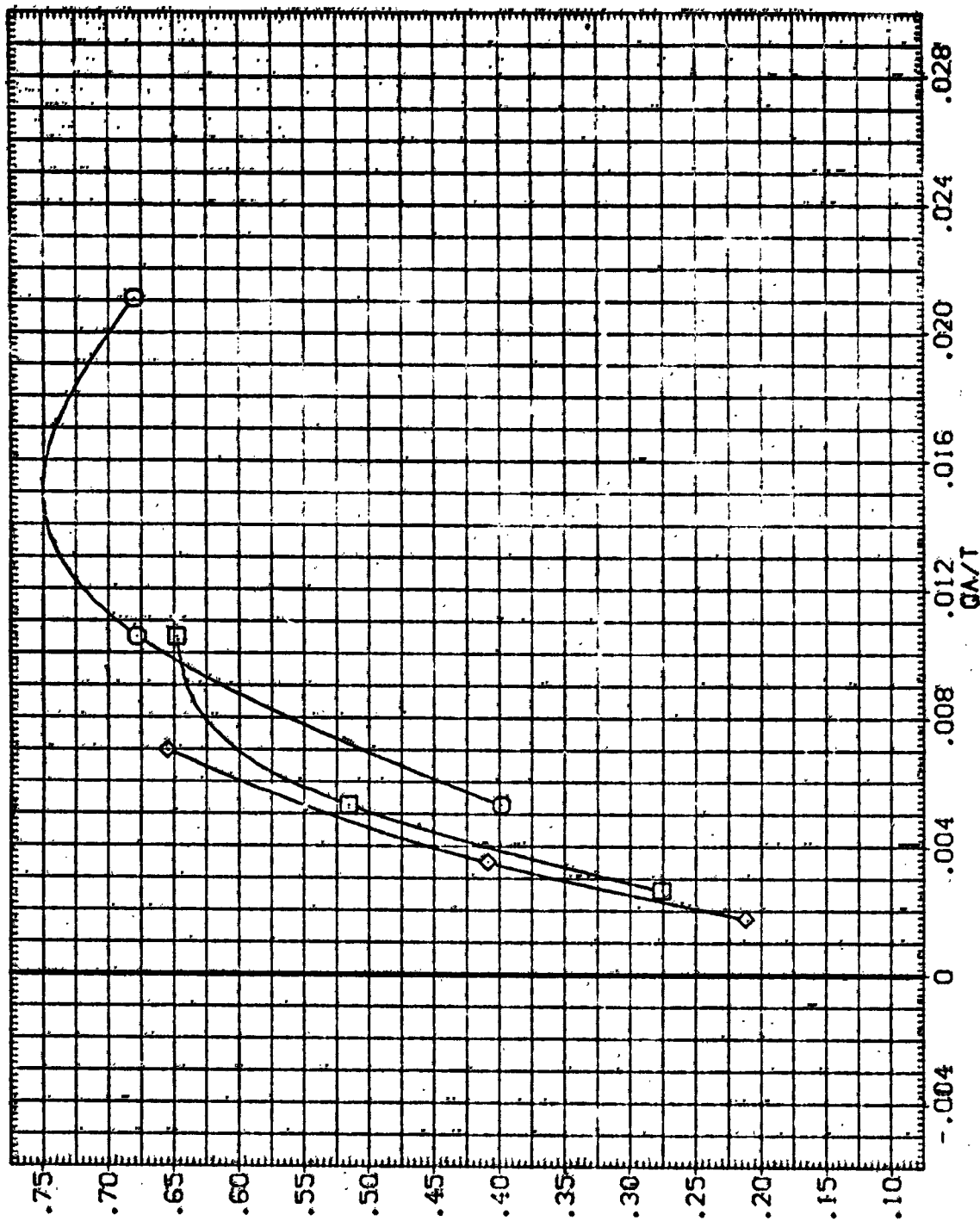


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78.N52.N82

(F) ALPHA = 2.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION	
(SJA-206)	01N78	LARC CFHT 118 (MA-22)		.000	1.000	.000	.000	SREF	2690.0000
(SJA-207)	01N52	LARC CFHT 118 (MA-22)		.000	2.000	.000	.000	LREF	474.8000
(SJA-208)	01N82	LARC CFHT 118 (MA-22)		.000	3.000	.000	.000	BREF	936.6800
								XTRP	1076.7000
								YTRP	.0000
								ZTRP	375.0000
								SCALE	.0100

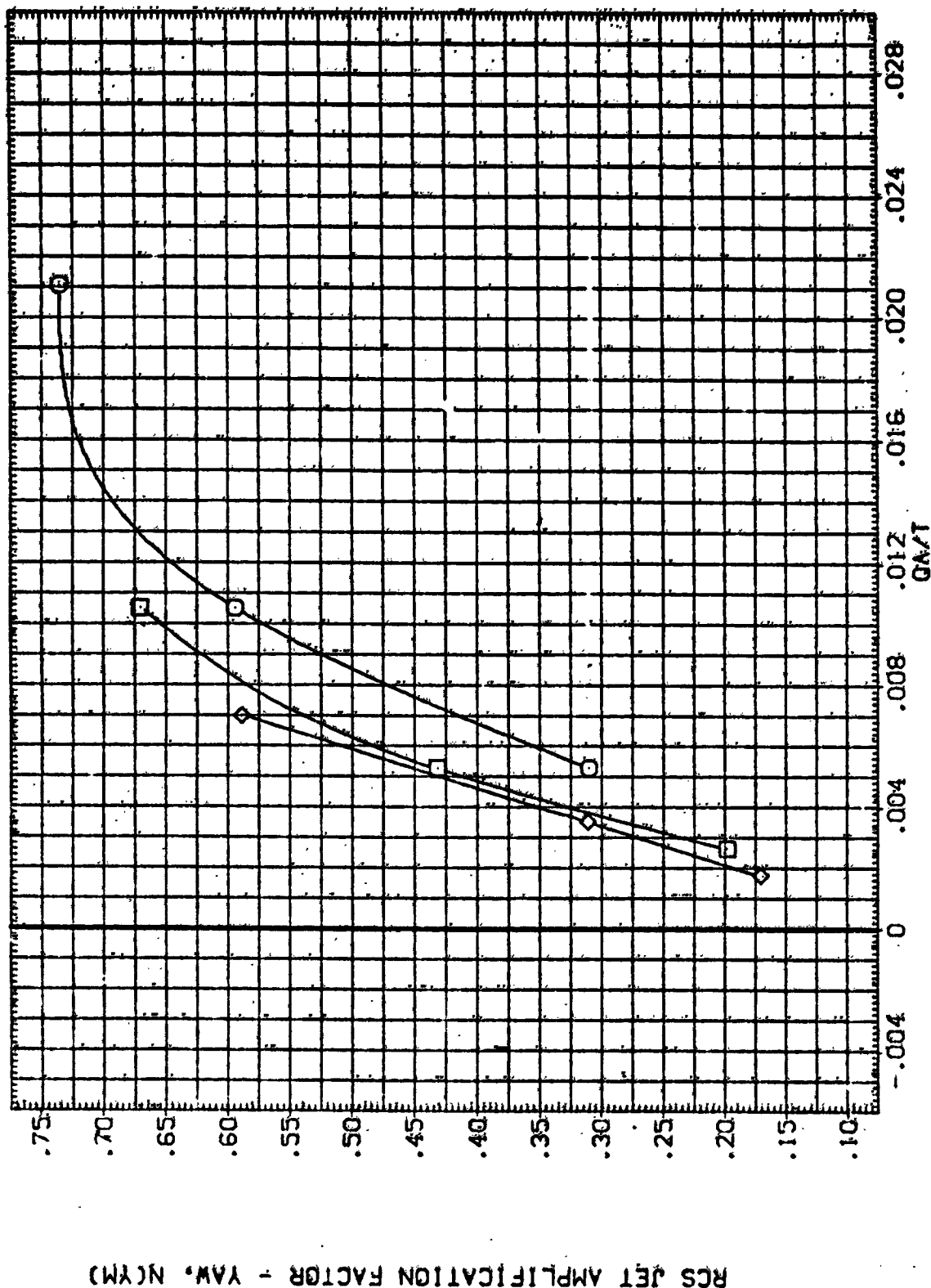


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(G)ALPHA = 4.00

DATA SET SYMBOL: Q1N78 Q1N52 Q1N82
 (SJA006) (SJA007) (SJA008)
 CONFIGURATION DESCRIPTION: LARC CFMT 118 (MA-22) LARC CFMT 118 (MA-22) LARC CFMT 118 (MA-22)
 ELEVON: .000 .000 .000
 NO. JET: 1.000 2.000 3.000
 BOFLAP: .000 .000 .000
 BETA: .000 .000 .000
 REFERENCE INFORMATION: SREF 2690.0000 50. FT. LREF 474.8000 INCHES BREF 936.6800 INCHES XMRP 1076.7000 IN. X0 YMRP .0000 IN. Y0 ZMRP 375.0000 IN. Z0 SCALE .0100

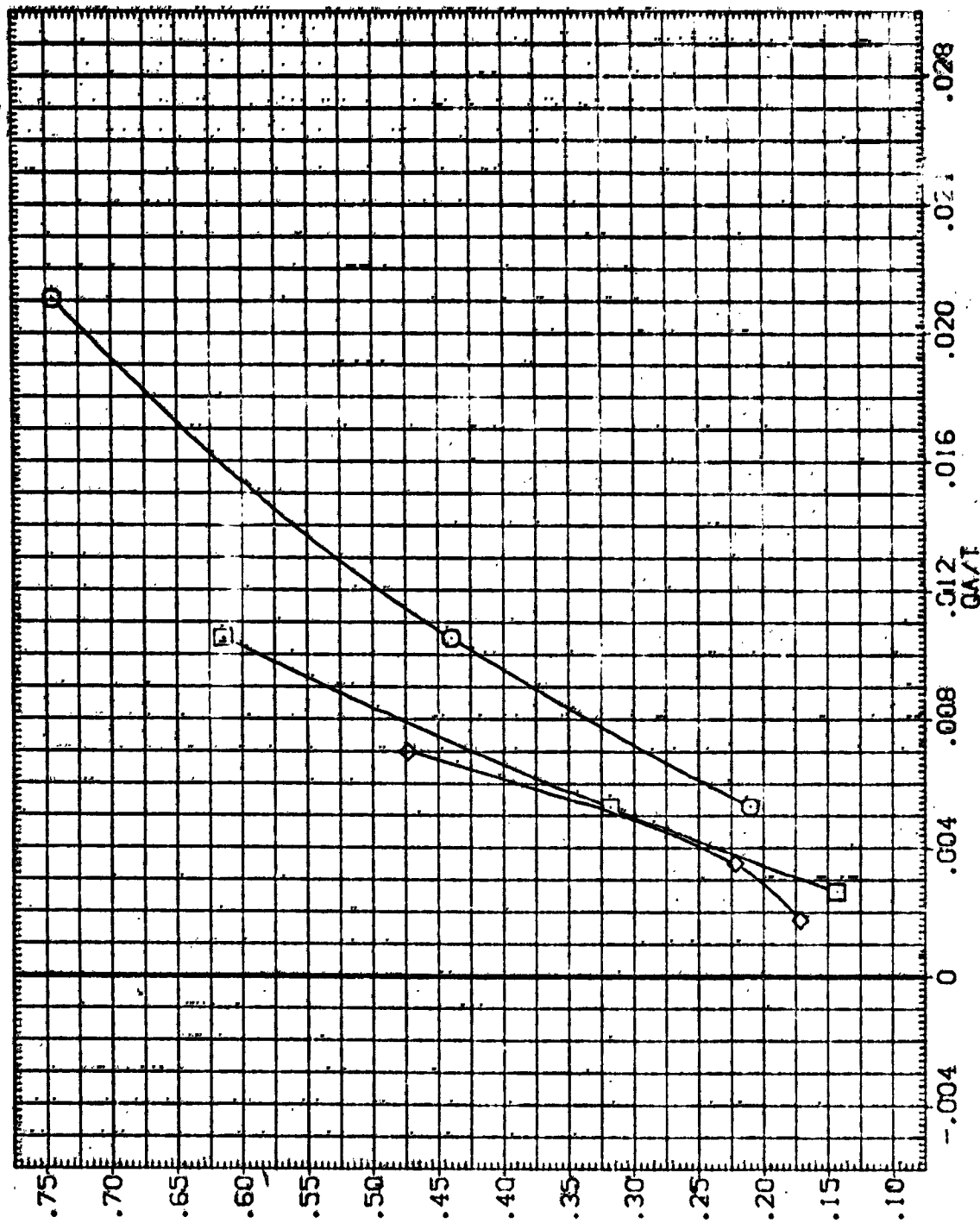


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(H)ALPHA = 6.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BD FLAP	BETA	REFERENCE INFORMATION
(SJA005)	CIN78 LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	SREF 2690.0000 SO.FT.
(SJA007)	CIN52 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.6000 INCHES
(SJA009)	CIN82 LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6000 INCHES
						XMRP 1076.7000 IN. YD
						YMRP 375.0000 IN. YD
						ZMRP 375.0000 IN. ZD
						SCALE .0100

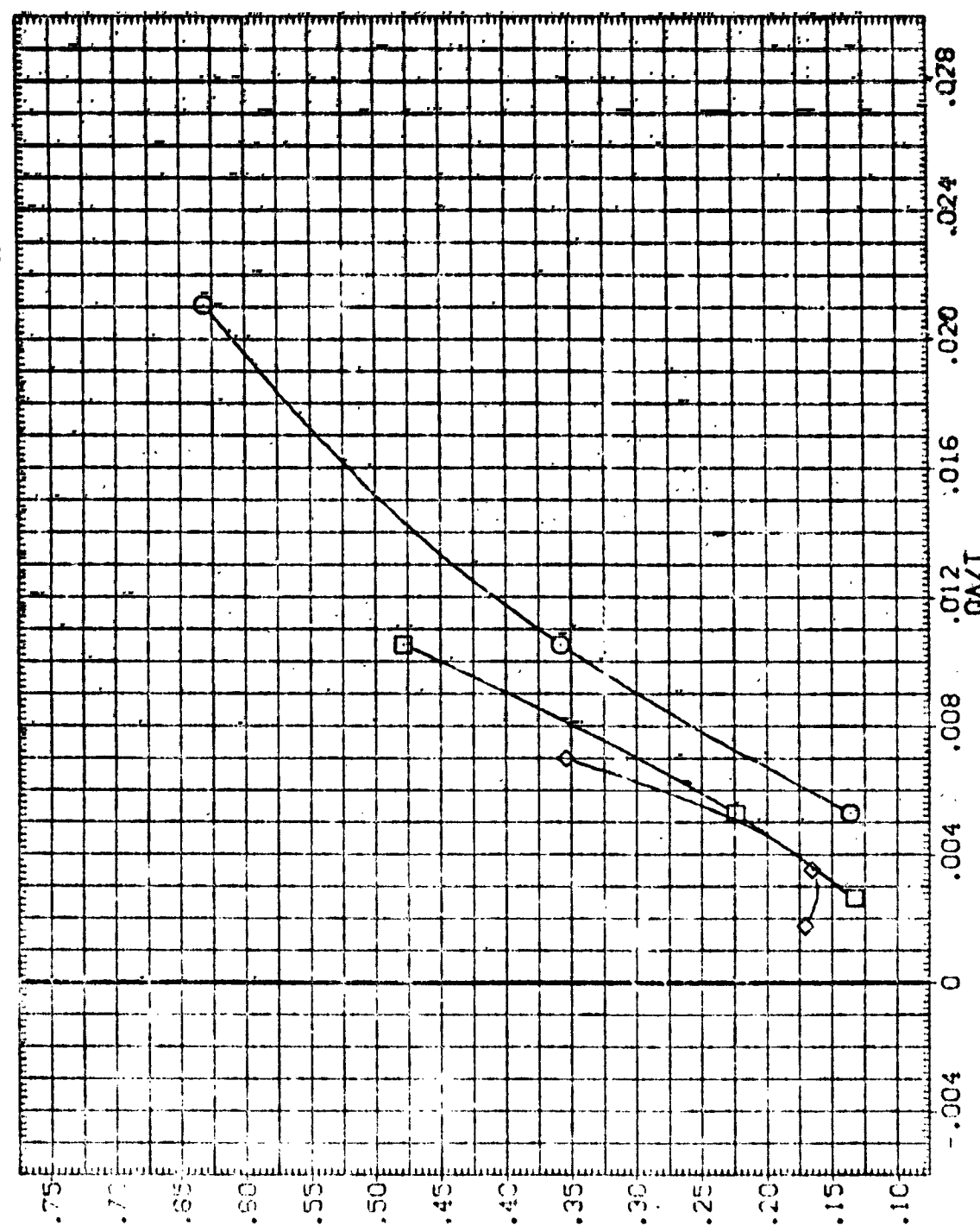


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(I)ALPHA = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) QIN78 LARC CPMT 118 (MA-22)
 (SJA007) QIN52 LARC CPMT 118 (MA-22)
 (SJA008) QIN82 LARC CPMT 118 (MA-22)

ELEVON NO. JET 80FLAP 0-1A
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION
 EF 26.0000 0.17
 LREF 47.0000 0.00
 CREF 9.0000 0.00
 NREF 10.0000 0.00
 NREF 10.0000 0.00
 ZREF 375.0000 1.00
 SCALE .0100

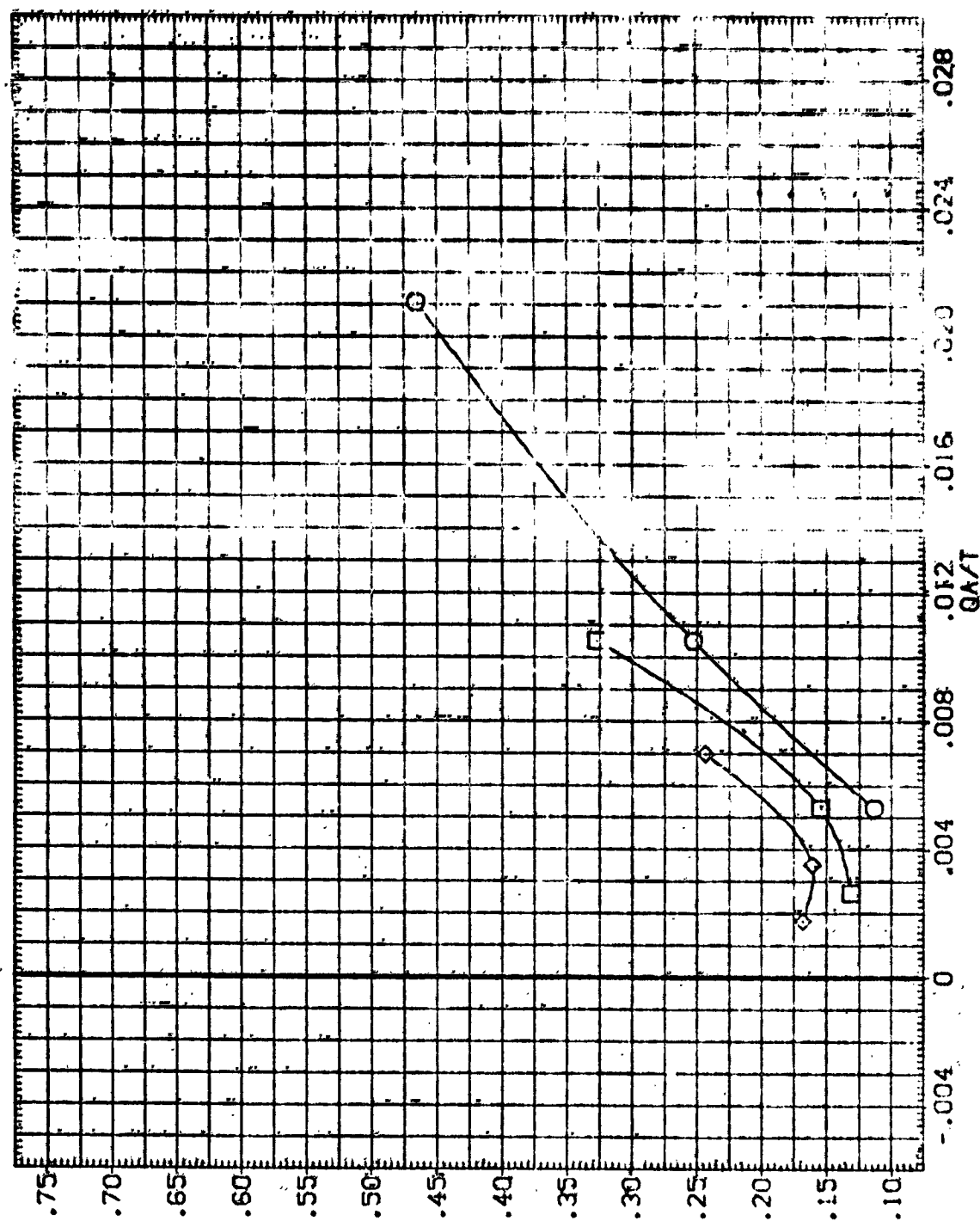


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(J)ALPHA = 10.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. SET		BDELAP		BETA		REFERENCE INFORMATION	
(SJA006)	01N78	LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	2650.0000	50.00	SREF	INCHES			
(SJA007)	01N52	LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	474.8000	INCHES	LREF	INCHES			
(SJA008)	01N52	LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	936.6800	INCHES	BREF	INCHES			
							1056.2000	INCHES	XREF	INCHES			
							375.0000	INCHES	YREF	INCHES			
							.0100	INCHES	ZREF	INCHES			
									SCALE				

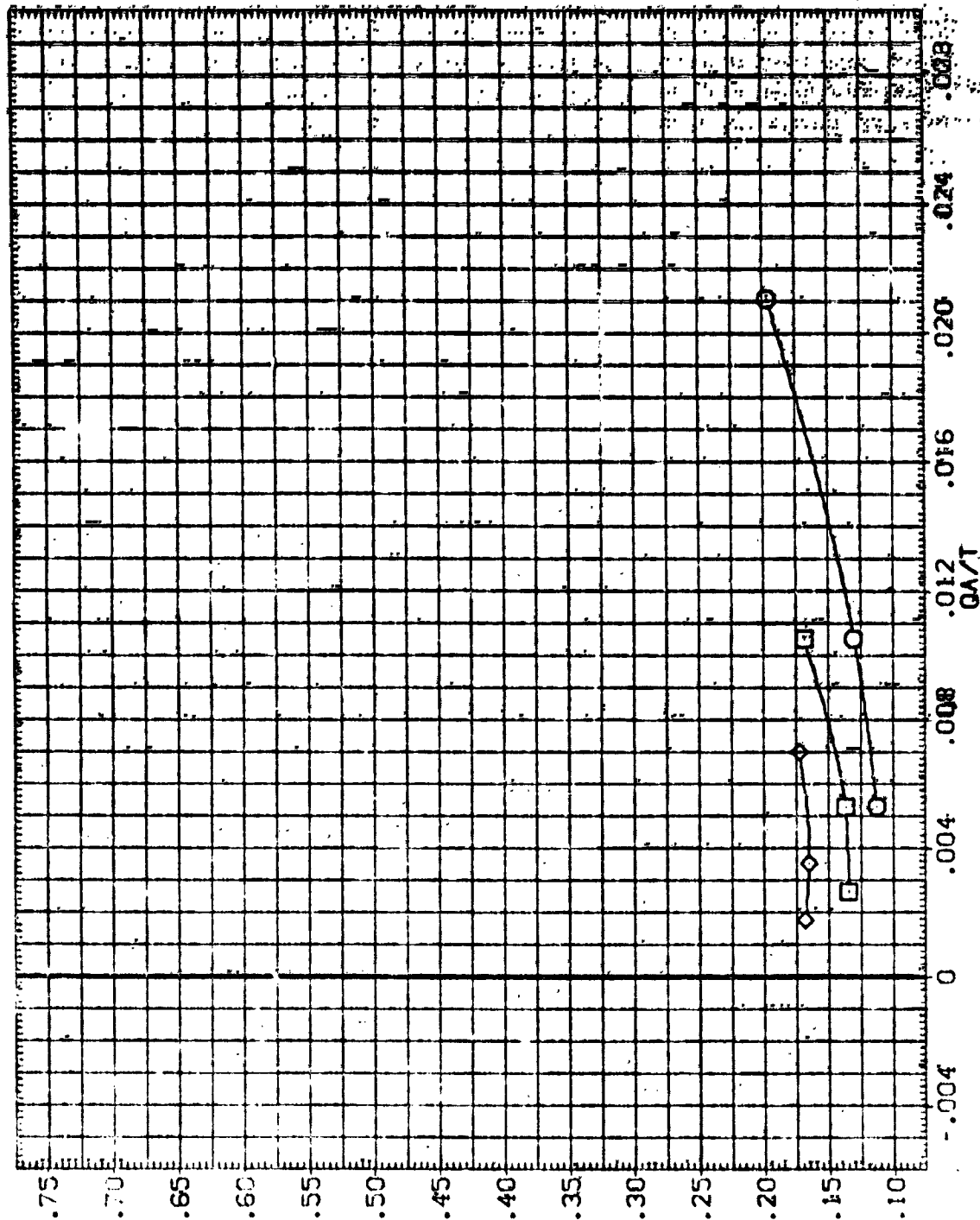


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(K) ALPHA = 15.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) 01N78 LARC CFHT 118 (MA-22)
 (SJA007) 01N52 LARC CFHT 118 (MA-22)
 (SJA008) 01N82 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 2690.0000 59. FT.
 .000 2.000 .000 474.8000 INCHES
 .000 3.000 .000 936.6500 INCHES
 .000 3.000 .000 1078.7000 IN. X0
 .000 3.000 .000 375.0000 IN. Y0
 .000 3.000 .000 375.0000 IN. Z0
 .000 3.000 .000 SCALE

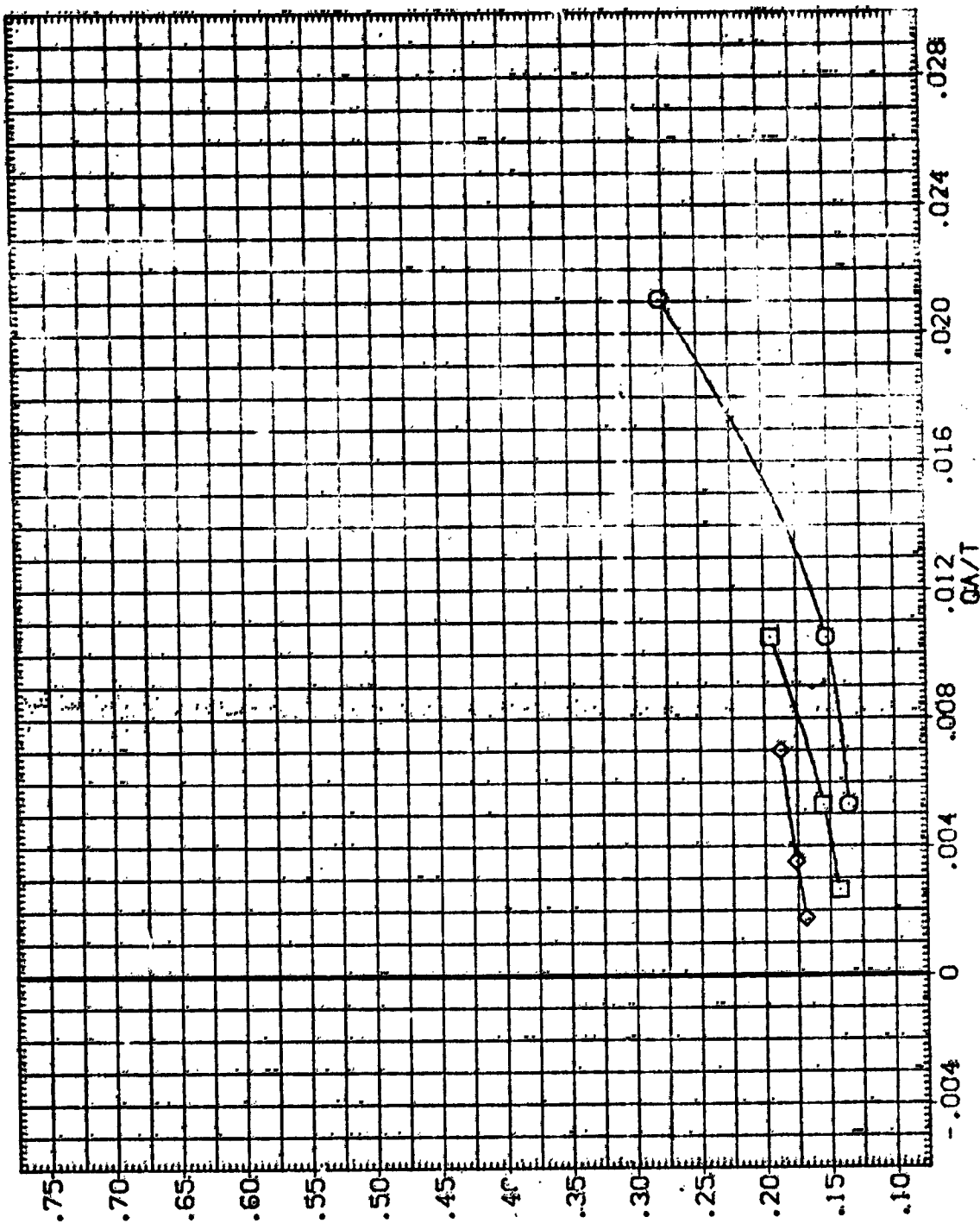


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82

(CL) ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BD FLAP	BETA	REFERENCE INFORMATION
(S1A005)	01N78 LARG CHT 118 (MA-22)	.000	1.000	.000	.000	SREF 2680.0000 SO. FT.
(S1A007)	01N52 LARG CHT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
(S1A009)	01N82 LARG CHT 118 (MA-22)	.000	3.000	.000	.000	BREF 936.6800 INCHES
						XPRP 1076.7000 IN. XG
						YPRP .0000 IN. YG
						ZPRP 375.0000 IN. ZG
						SCALE .0100

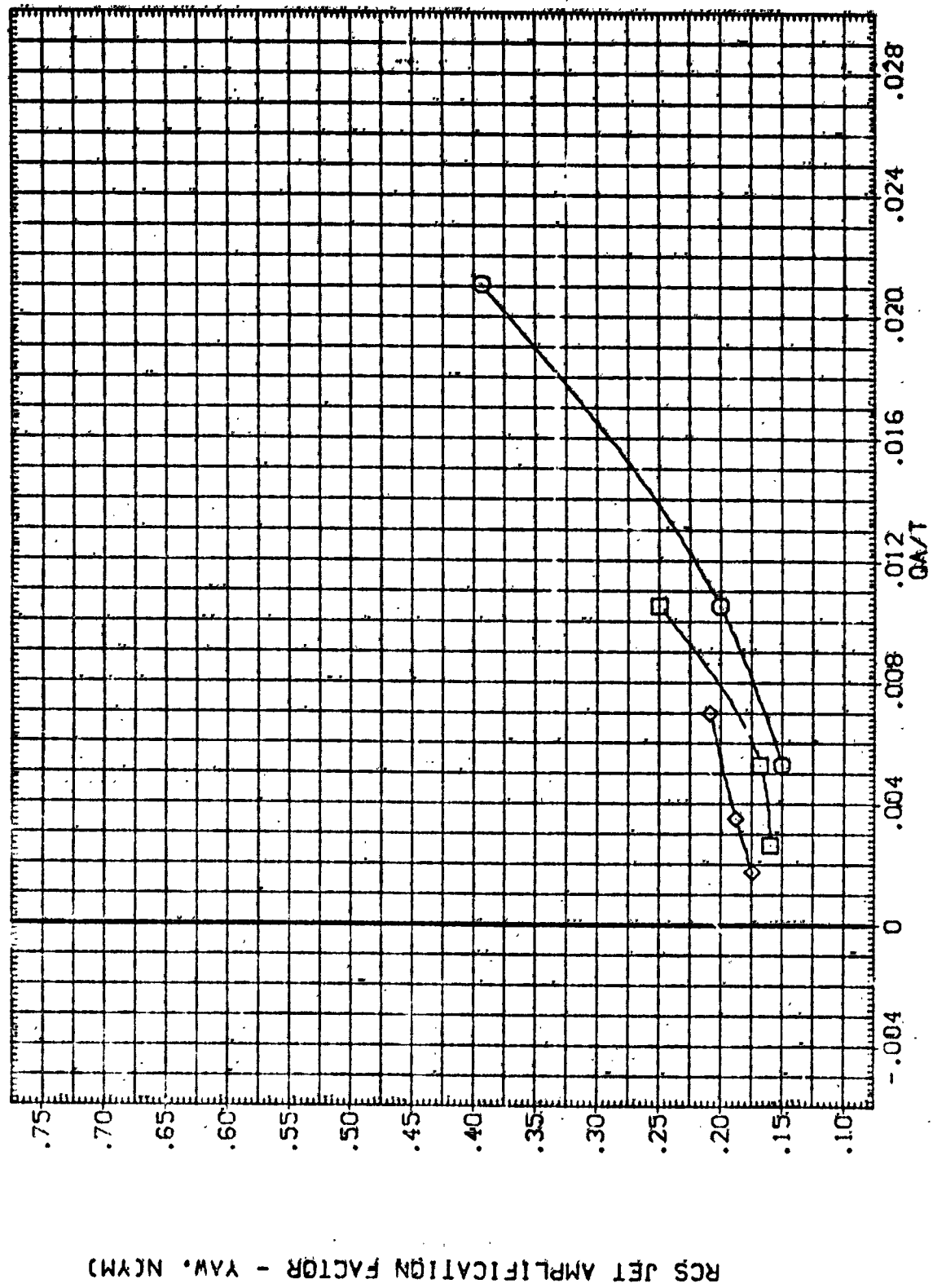


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(M)ALPHA = 25.00

DATA SET SYMBOL: (S1A006) (S1A007) (S1A008)

CONFIGURATION DESCRIPTION: Q1N78 Q1N52 Q1N82

ELEVON: .000 .000 .000

NO. JET: 1.000 2.000 3.000

BDFLAP: .000 .000 .000

BETA: .000 .000 .000

REFERENCE INFORMATION:

REF	2600.0000	474.8000	936.8000	1076.2000	375.0000	0.0100
SREF	2600.0000	474.8000	936.8000	1076.2000	375.0000	0.0100
LREF	2600.0000	474.8000	936.8000	1076.2000	375.0000	0.0100
BREF	2600.0000	474.8000	936.8000	1076.2000	375.0000	0.0100
YMRP	2600.0000	474.8000	936.8000	1076.2000	375.0000	0.0100
ZMRP	2600.0000	474.8000	936.8000	1076.2000	375.0000	0.0100
SCALE	2600.0000	474.8000	936.8000	1076.2000	375.0000	0.0100

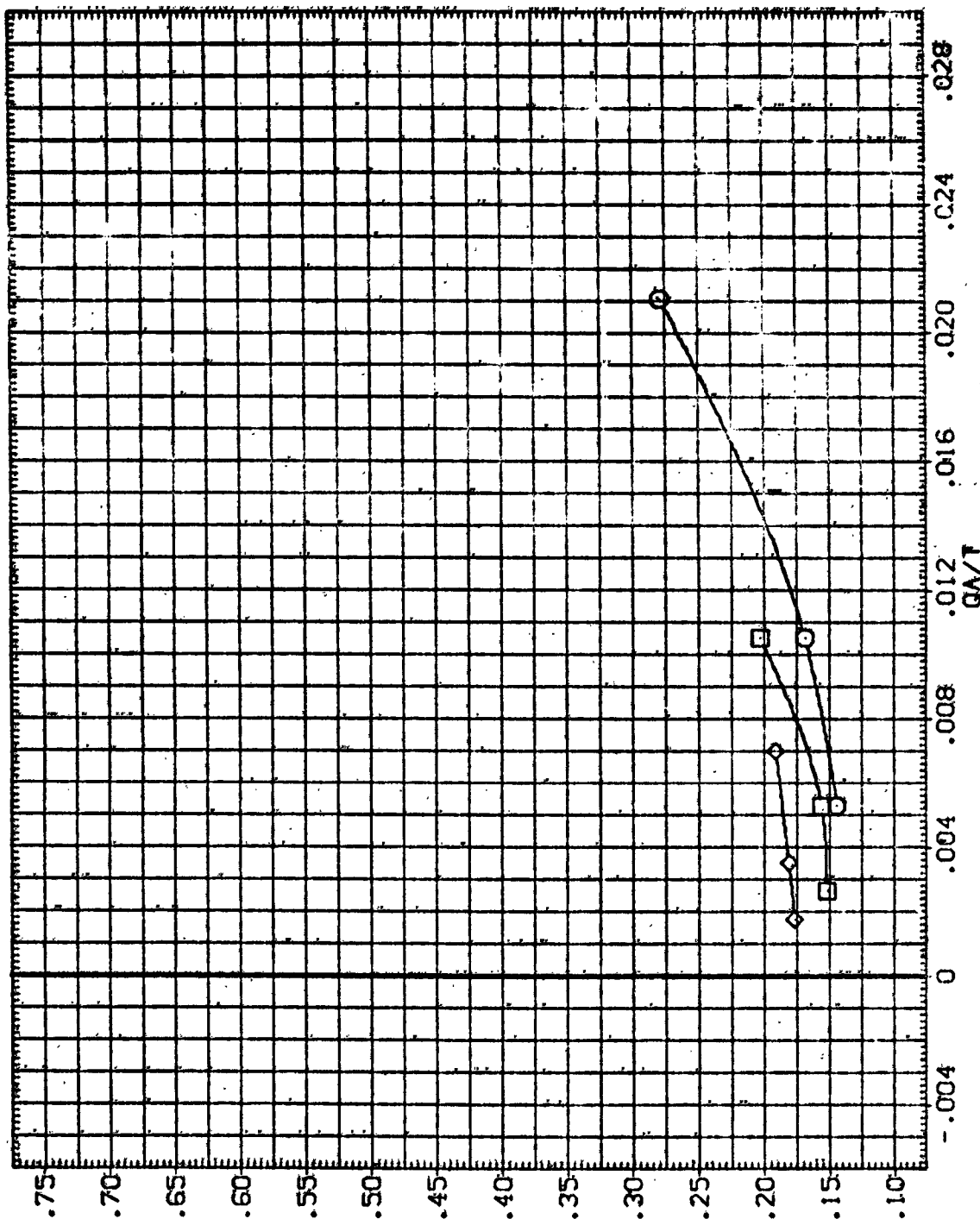


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

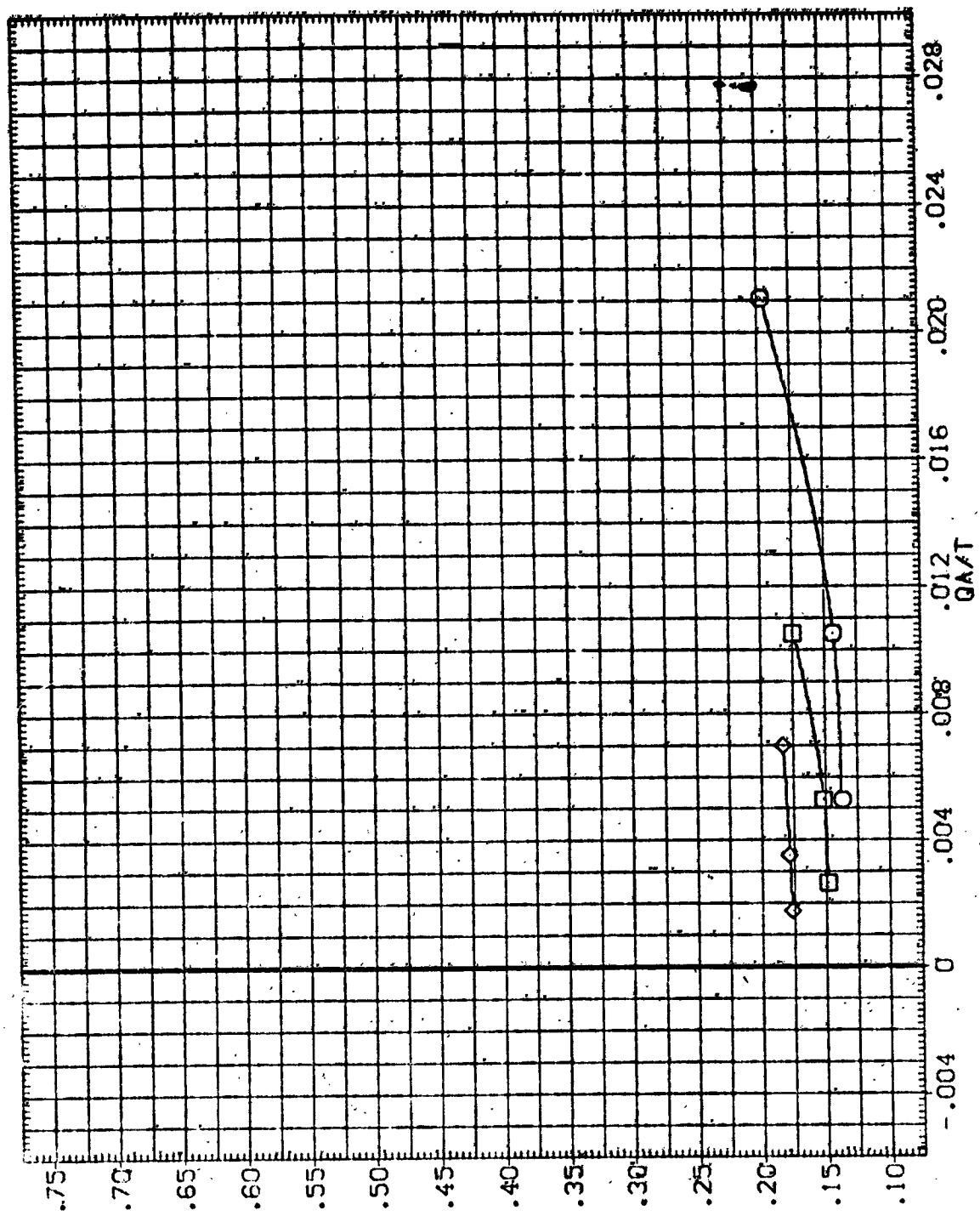
(N)ALPHA = 30.00

DATA SET SYMBOL
(SJA006)
(SJA007)
(SJA008)

CONFIGURATION DESCRIPTION
QIN78 LARC CFHT 118 (MA-22)
QIN52 LARC CFHT 118 (MA-22)
QIN82 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
.000 1.000 .000
.000 2.000 .000
.000 3.000 .000

REFERENCE INFORMATION
SREF 2696.0000 50. FT.
LREF 471.8080 INCHES
BREF 936.6880 INCHES
XMRP 1076.7000 IN. 20
YMRP .0000 IN. 20
ZMRP 375.0100 IN. 20
SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, (N/M)

FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(O)ALPHA = 35.00

DATA SET SYMBOL
 (SJA006.1)
 (SJA007)
 (SJA008)

CONFIGURATION DESCRIPTION
 LARC CFT 118 (NA-22)
 LARC CFT 118 (NA-22)
 LARC CFT 118 (NA-22)

ELEVON
 .000
 .000
 .000

NO. JET
 1.000
 2.000
 3.000

BDFLAP
 .000
 .000
 .000

REFERENCE FORMATION
 SREF 269C .000 SO. FT.
 LREF 47A .00 INCHES
 BREF 936 .000 INCHES
 XMRP 102E .000 IN. XG
 YMRP .000 IN. YG
 ZMRP 325 .000 IN. ZG
 SCALE 100

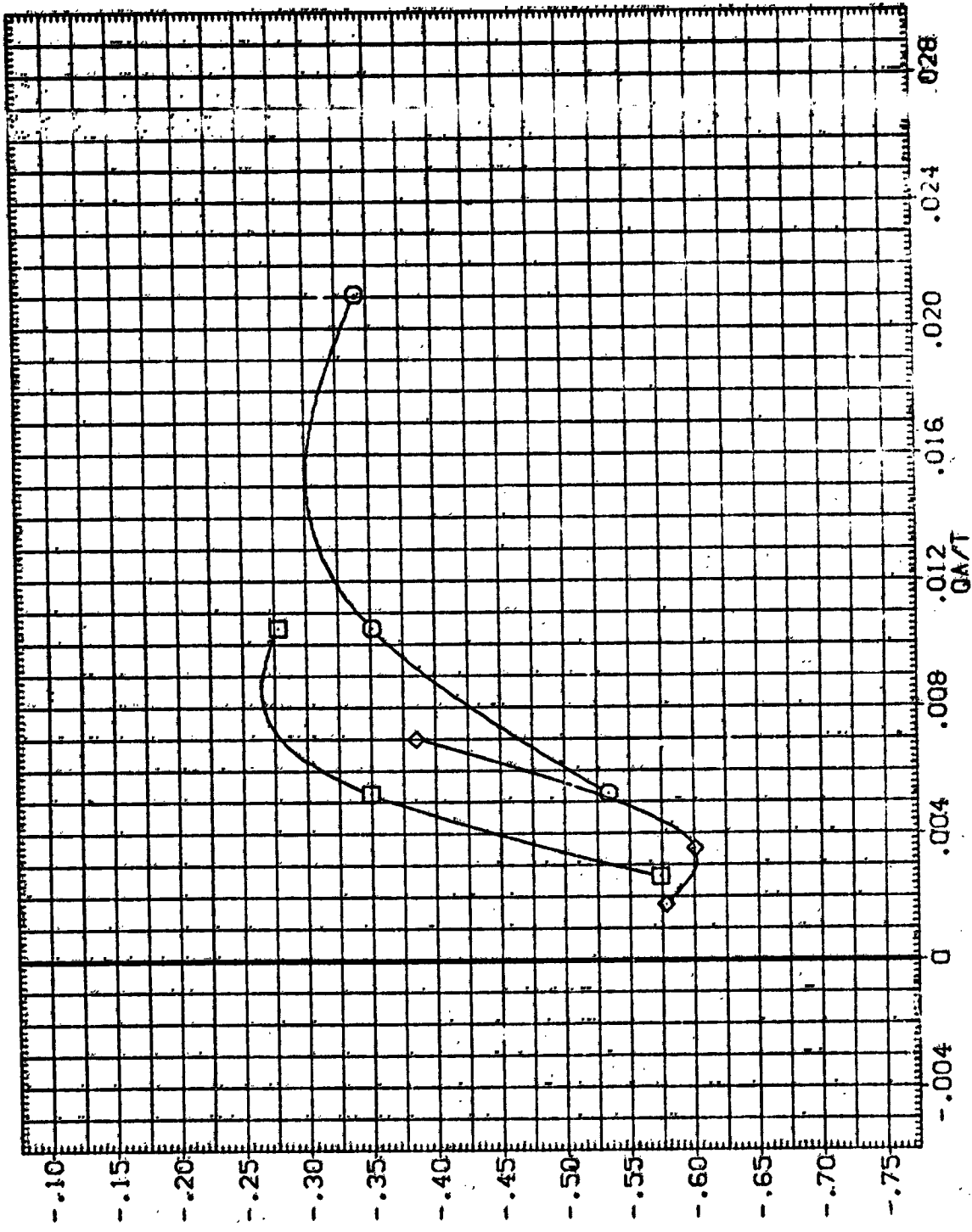
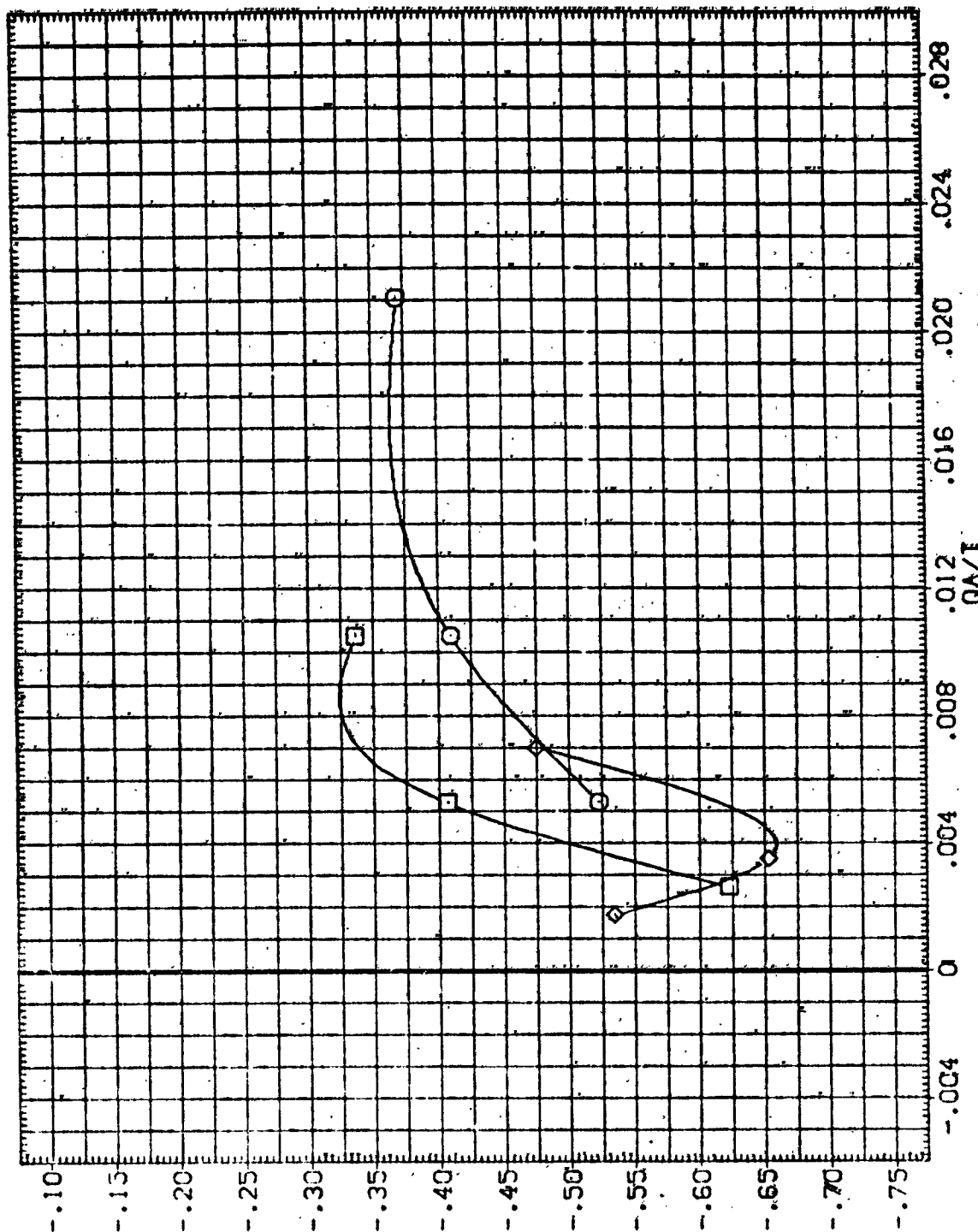


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(A) ALPHA = -8.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BOFLAP		BETA		REFERENCE INFORMATION	
(S1003)	QIN78	LARC CFHT 118 (MA-22)		.000	1.000	.000		.000		SREF	2690.0000	50. FT.	
(S1007)	QIN52	LARC CFHT 118 (MA-22)		.000	2.000	.000		.000		LREF	474.8000	INCHES	
(S14003)	QIN82	LARC CFHT 118 (MA-22)		.000	3.000	.000		.000		BREF	936.6800	INCHES	
										XMRP	1076.7000	IN. YD	
										YMRP	.0000	IN. YD	
										ZMRP	375.0000	IN. YD	
										SCALE	.0100		



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NCSF

FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82

(BJALPHA = -6.00

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, (NSF)

DATA SET SYMBOL: Q1478
 (SJA005) Q1478 LARC CFHT 118 (MA-22)
 (SJA007) Q1478 LARC CFHT 118 (MA-22)
 (SJA008) Q1478 LARC CFHT 118 (MA-22)

ELEVON NO. JET BRFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2650.0000 IN. FT.
 .000 2.000 .000 LREF 474.9000 INCHES
 .000 3.000 .000 BREF 935.5800 INCHES
 .000 .000 .000 XRRP 1076.7000 IN. X
 .000 .000 .000 YRRP .0000 IN. Y
 .000 .000 .000 ZRRP 375.0000 IN. Z
 SCALE .0100

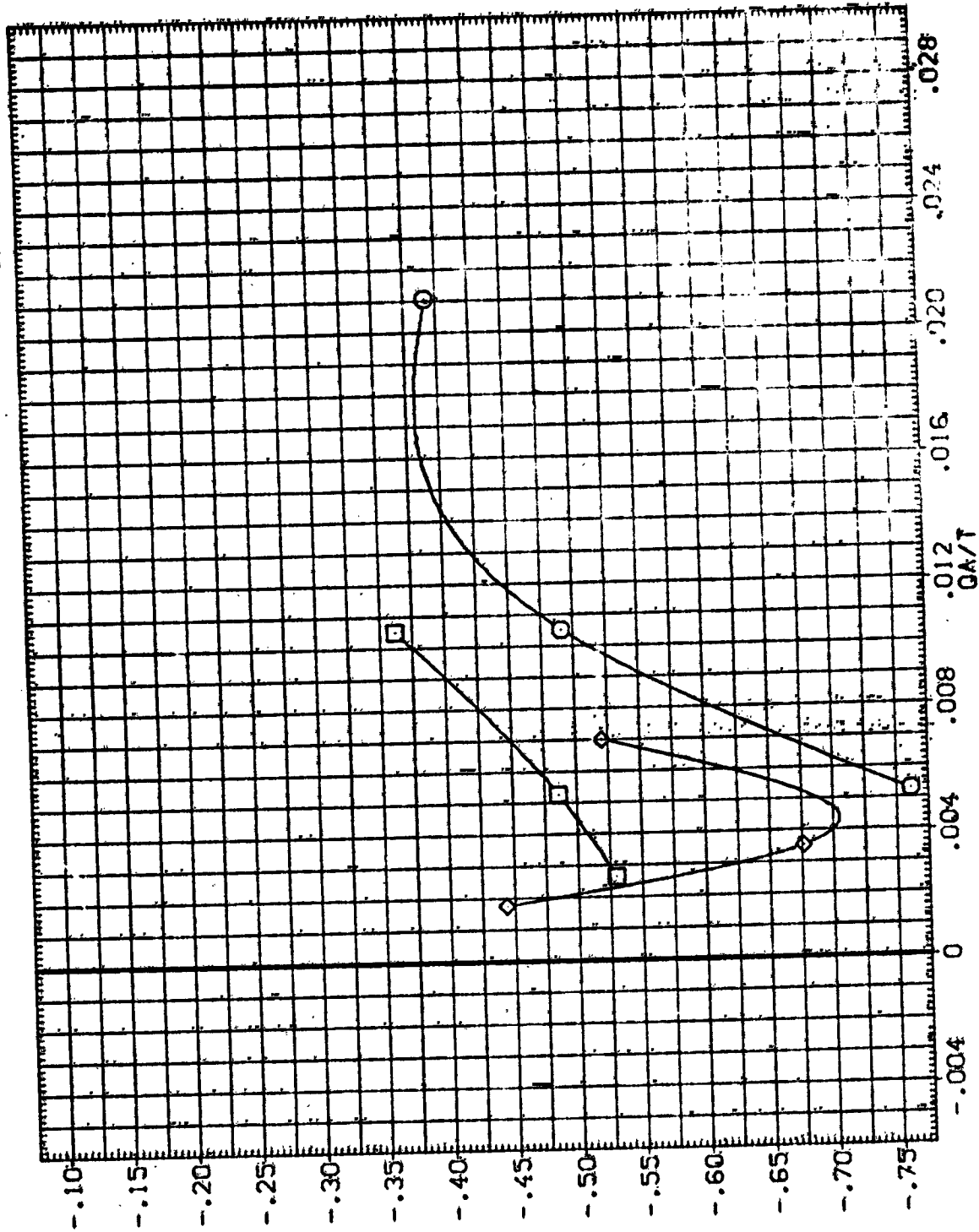


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(CYALPHA = -4.00)

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVATION		NO. JET		BOFLAP		BETA		REFERENCE INFORMATION	
(SUA206)	01407	LARC CFHT 118 (MA-22)		.003	1.000	.000		.000		SREF	2690.0000	SD, FT.	
(SUA207)	01408	LARC CFHT 118 (MA-22)		.003	2.000	.000		.000		LREF	474.8000	INCHES	
(SUA208)	01409	LARC CFHT 118 (MA-22)		.003	3.000	.000		.000		BREF	936.6800	INCHES	
										XMRP	1076.7000	IN. X0	
										YMRP	.0000	IN. Y0	
										ZMRP	375.0000	IN. Z0	
										SCALE	.0100		

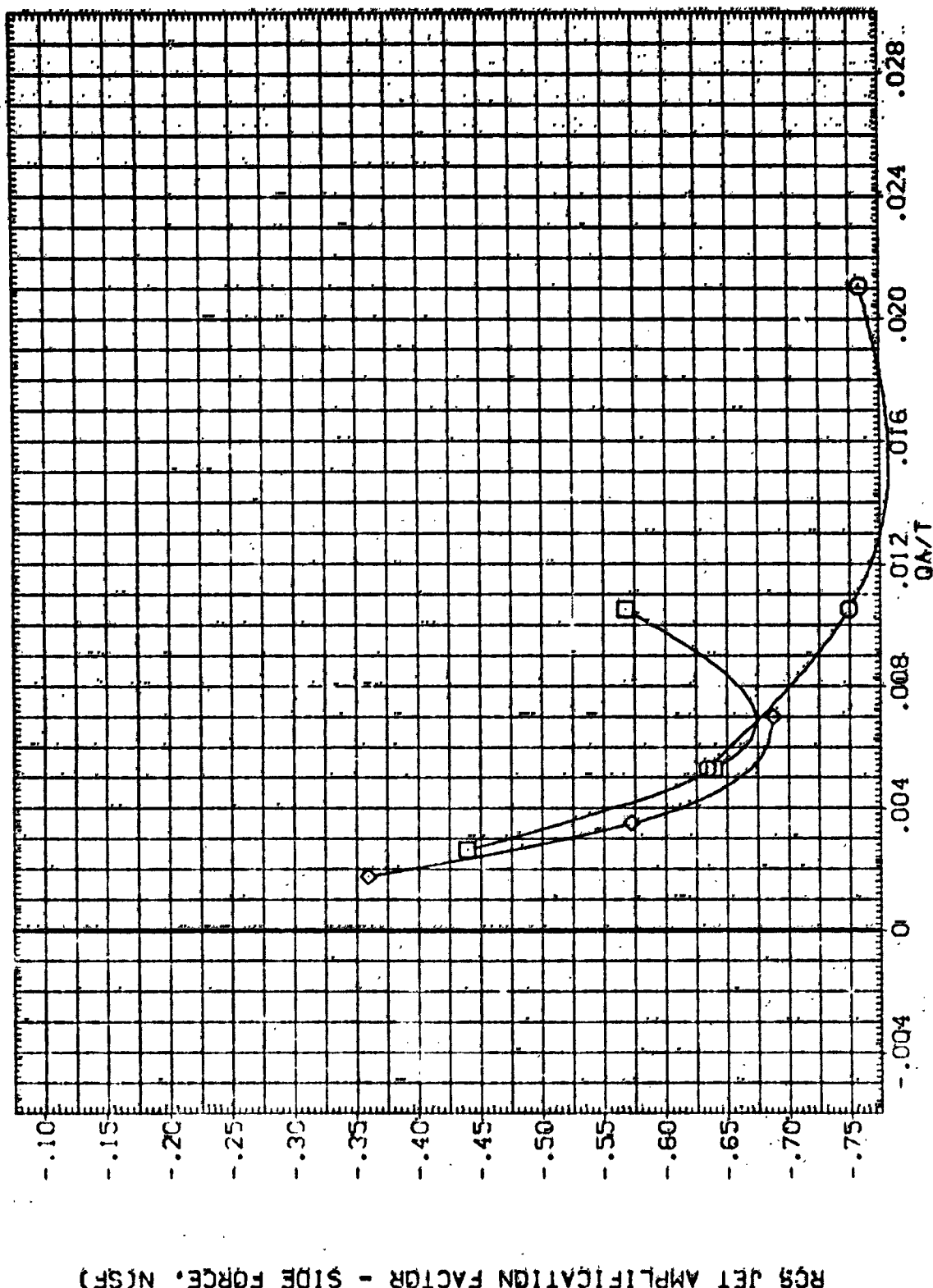


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(O) ALPHA = -2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) QN078 LARC CFHT 118 (MA-22)
 (SJA007) QN52 LARC CFHT 118 (MA-22)
 (SJA008) QN82 LARC CFHT 118 (MA-22)

ELEVON NO JET BOFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2690.0000 SQ. FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 BREF 936.6800 INCHES
 XREF 1076.7000 IN. NO
 YREF .0000 IN. Y0
 ZREF 335.0000 IN. Z0
 SCALE .0100

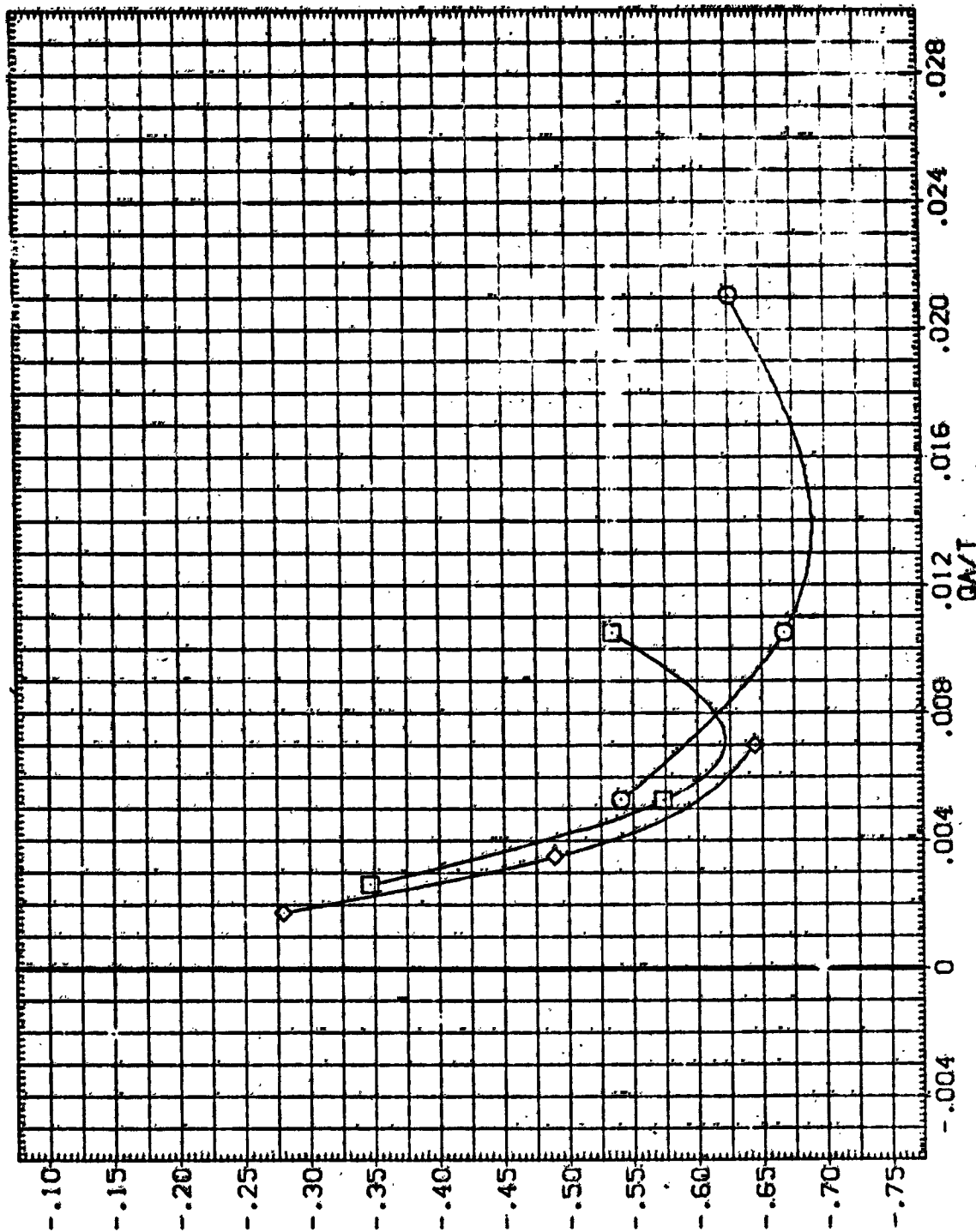


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(E)ALPHA = .00

DATA SET SYMBOL: 01N78
 (50.005)
 (50.007)
 (50.008)

CONFIGURATION DESCRIPTION:
 LARC CFHT 118 (MA-22)
 LARC CFHT 118 (MA-22)
 LARC CFHT 118 (MA-22)

ELEVATION: 0.000
 1.000
 2.000
 3.000

BOFLAP: 0.000
 0.000
 0.000

REFERENCE INFORMATION:
 SREF: 2690.0000
 LREF: 474.8000
 BREF: 938.6800
 XMRP: 1026.7000
 YMRP: 0.0000
 ZMRP: 375.0000
 SCALE: 0.0100

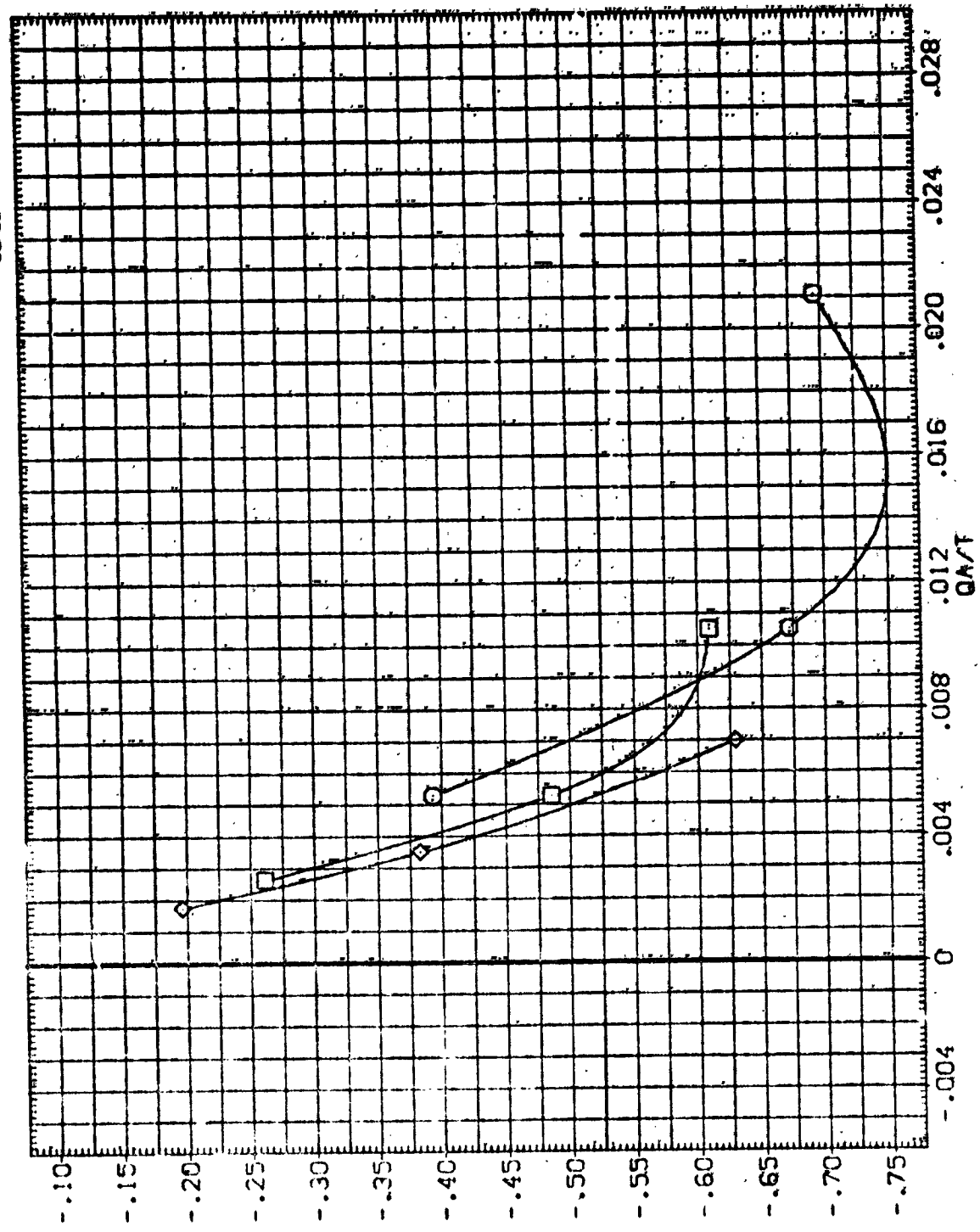


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78.N52.N82

(F)ALPHA = 2.00

DATA SET SYMBOL
 (SJA005)
 (SJA007)
 (SJA008)



CONFIGURATION DESCRIPTION
 01N78 LARC CPHT 118 (MA-22)
 01N82 LARC CPHT 118 (MA-22)
 01N82 LARC CPHT 118 (MA-22)

ELEVON NO JET BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 2698.0000 50A-FT.
 .000 2.000 .000 LREF 474.8000 INCHES
 .000 3.000 .000 BREF 936.6800 INCHES
 XREF 1076.7000 IN. 10
 YREF .0000 IN. 10
 ZREF 375.0000 IN. 20
 SCALE .0100

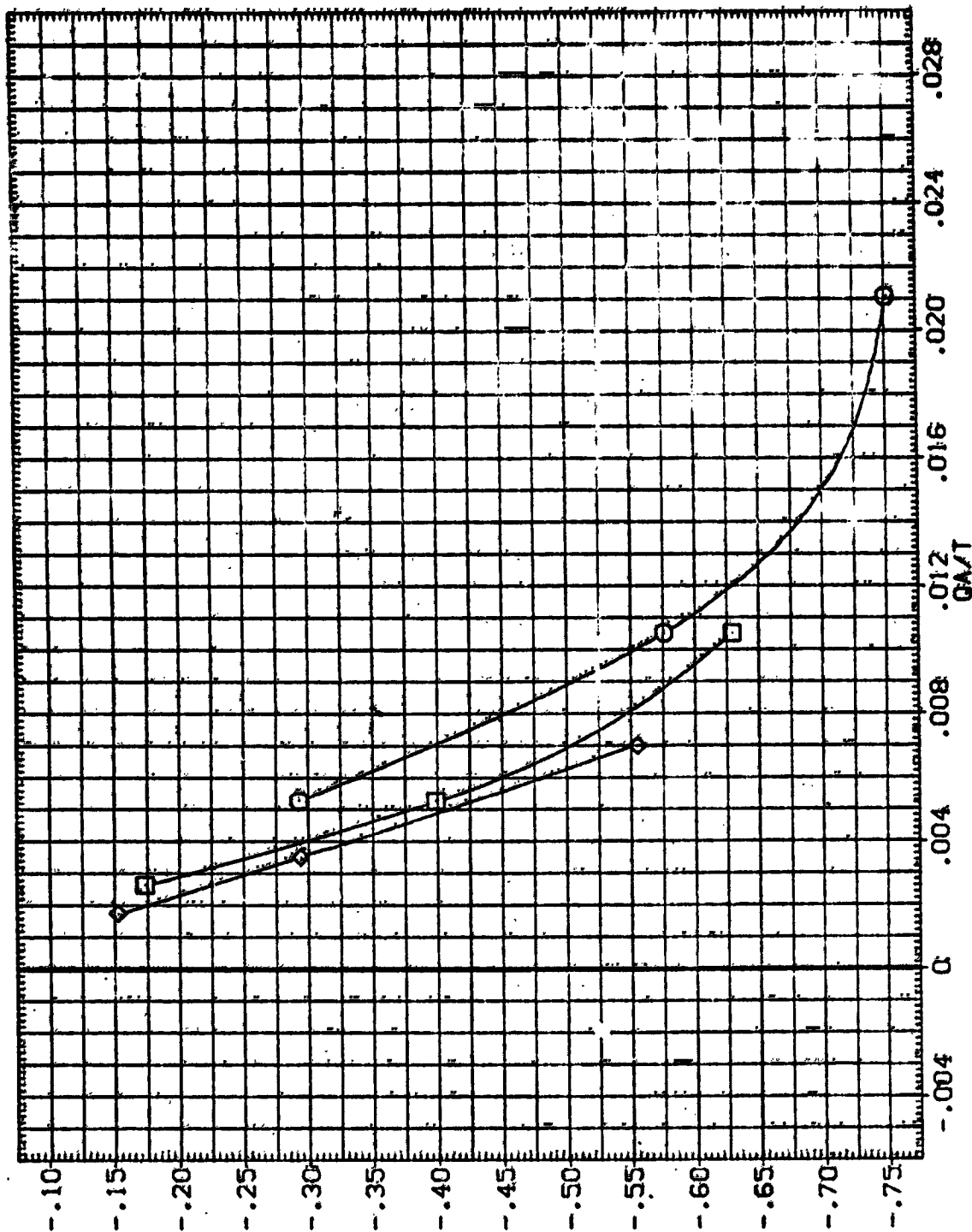


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(G)ALPHA = 4.00

REFERENCE INFORMATION

SREF	2690.0000	INCHES
LREF	474.8300	INCHES
BREF	936.6800	INCHES
YREF	1076.7000	INCHES
ZREF	375.0000	INCHES
SCALE	375.0000	INCHES

ELEVON NO. JET BDFLAP BETA

1.000	.000	.000
2.000	.000	.000
3.000	.000	.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

010005	010078	LARC CFT 118 (NA-22)
010006	010052	LARC CFT 118 (NA-22)
010007	010092	LARC CFT 118 (NA-22)

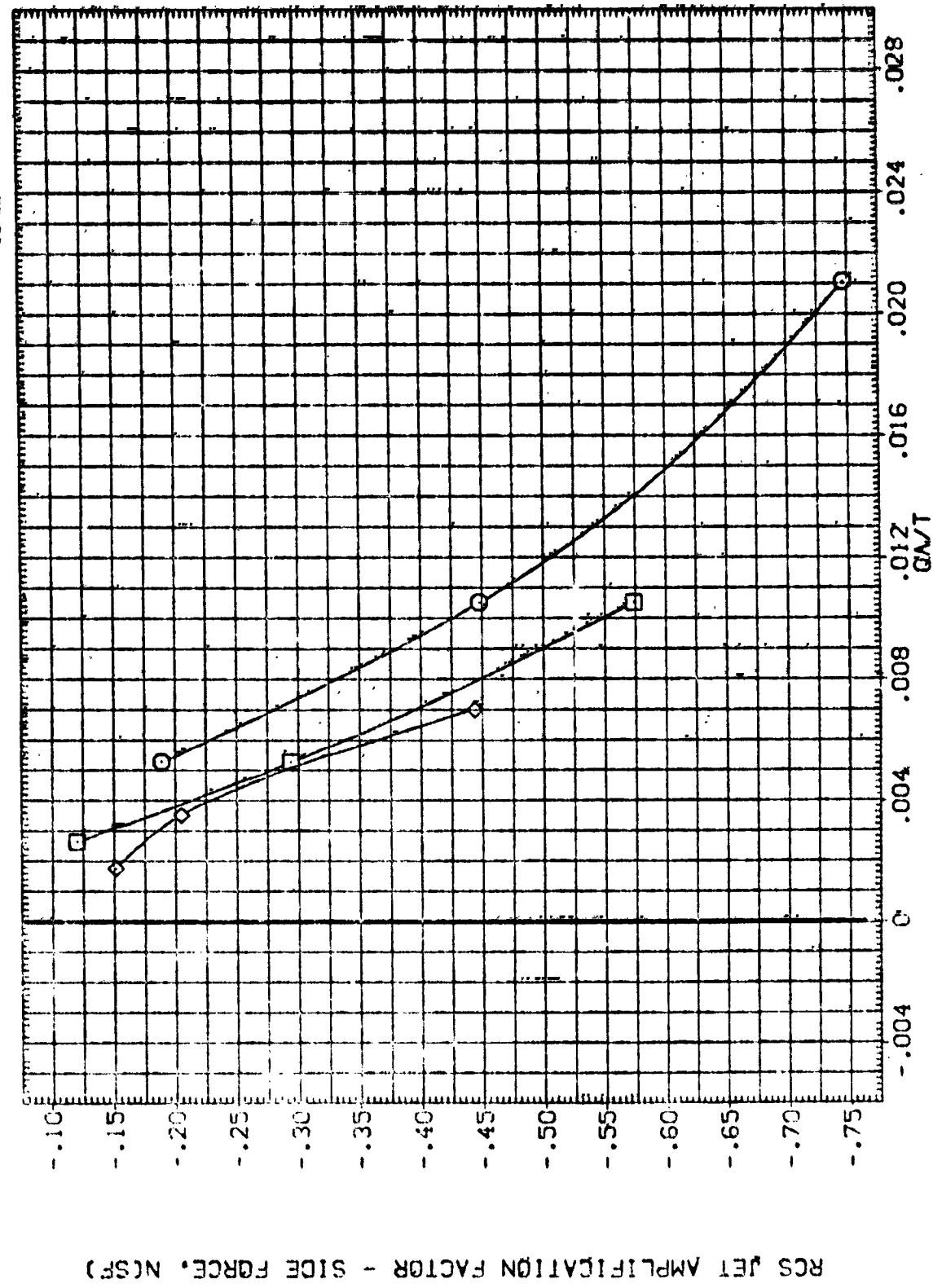


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(H)ALPHA = 6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) G1N78 LARC CPHE 118 (NA-221)
 (SJA007) G1N52 LARC CPHE 118 (NA-221)
 (SJA008) G1N82 LARC CPHE 118 (NA-221)

ELEVON NO. JET BDFLAP BETA
 .000 1.000 .000
 .000 2.000 .000
 .000 3.000 .000

REFERENCE INFORMATION
 SREF 2693.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 535.6800 INCHES
 XREF 1076.7000 IN. X2
 YREF .0000 IN. Y2
 ZREF 373.0000 IN. Z2
 SCALE .0300

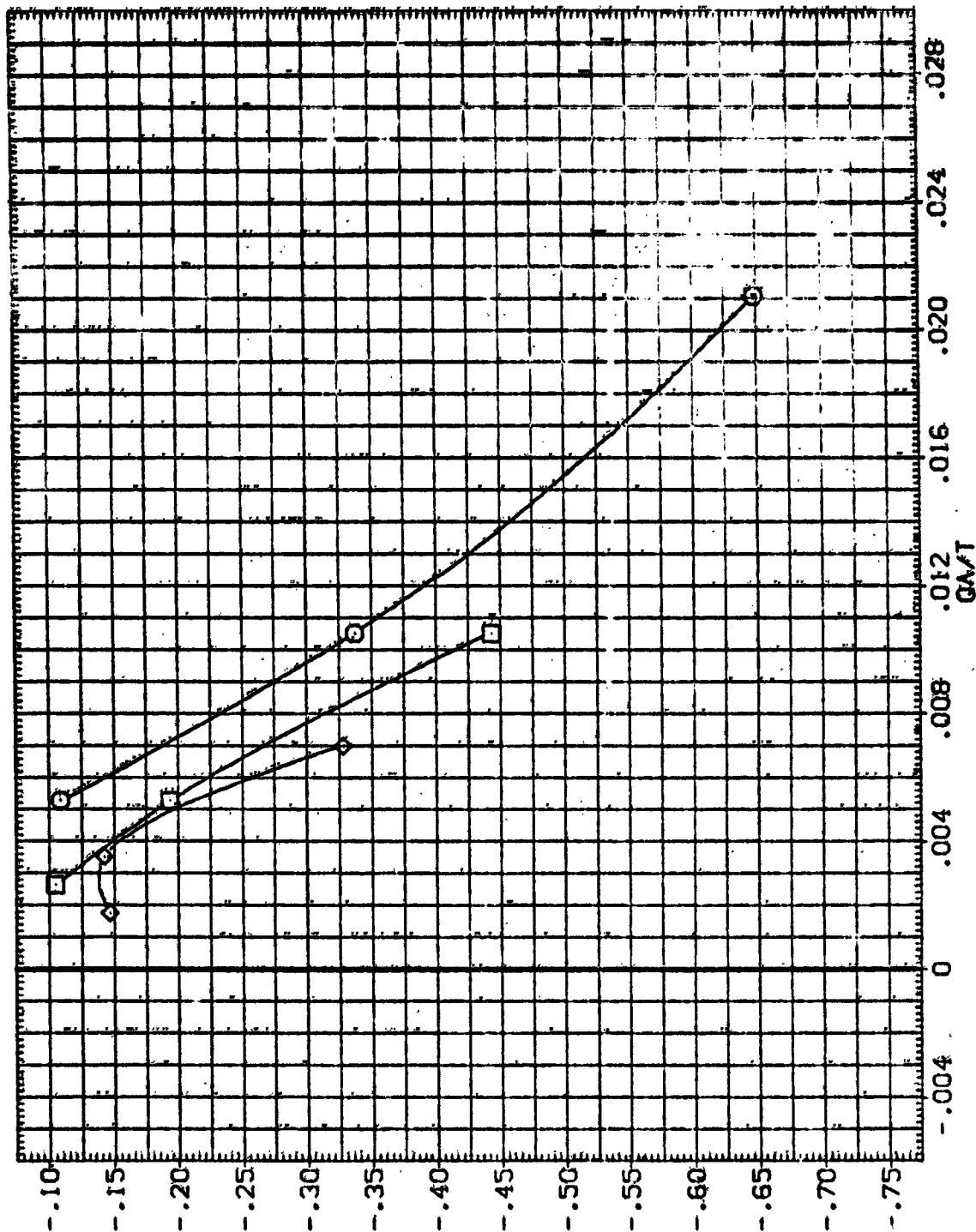
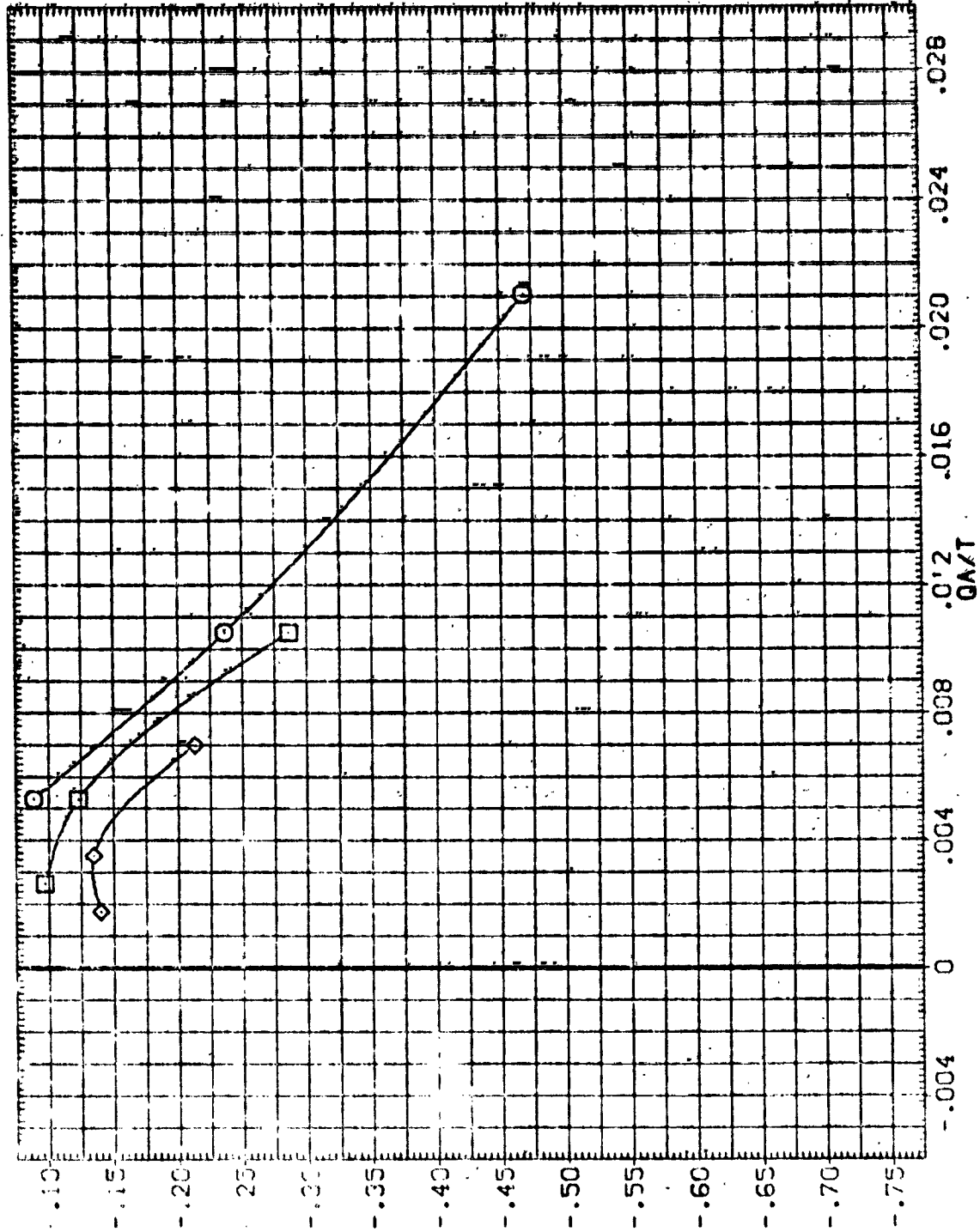


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78, N52, N82

(1) ALPHA = 8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA006)	30078 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	REF 2890.0000 SQ. FT.
(SJA007)	QIN22 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	REF 474.8000 INCHES
(SJA008)	QIN52 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	REF 936.5800 INCHES
						REF 1076.7000 IN. LB
						REF .0000 IN. LB
						REF 379.0000 IN. ZIN
						SCALE .0000



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NCSF

FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(J)ALPHA = 10.00

DATA SET SYMBOL: 01N78 01N52 01N82
 CONFIGURATION DESCRIPTION: LARC CENT 118 (MA-22) LARC CFHT 118 (MA-22) LARC CENT 118 (MA-22)

ELEVON .000 .000 .000
 NO. JET 1.000 2.000 3.000
 BOFLAP .000 .000 .000
 BETA .000 .000 .000

REFERENCE INFORMATION:
 SREF 2650 IN. 50 IN.
 LREF 1474 IN. 1 INCHES
 BREF 936 IN. 1 INCHES
 YMRP 1376 IN. 10 IN.
 ZMRP 375 IN. 10 IN.
 SCALE 10100

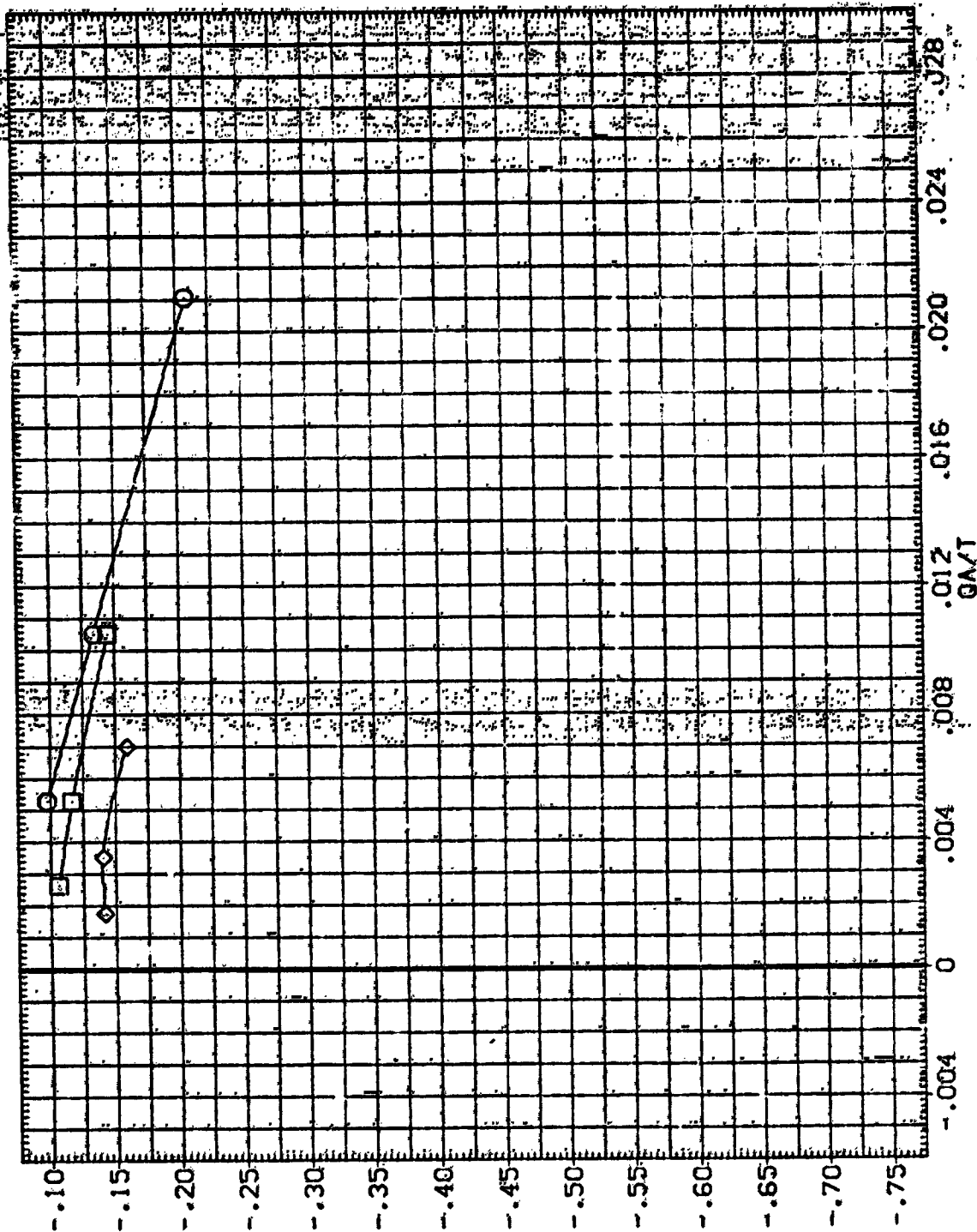


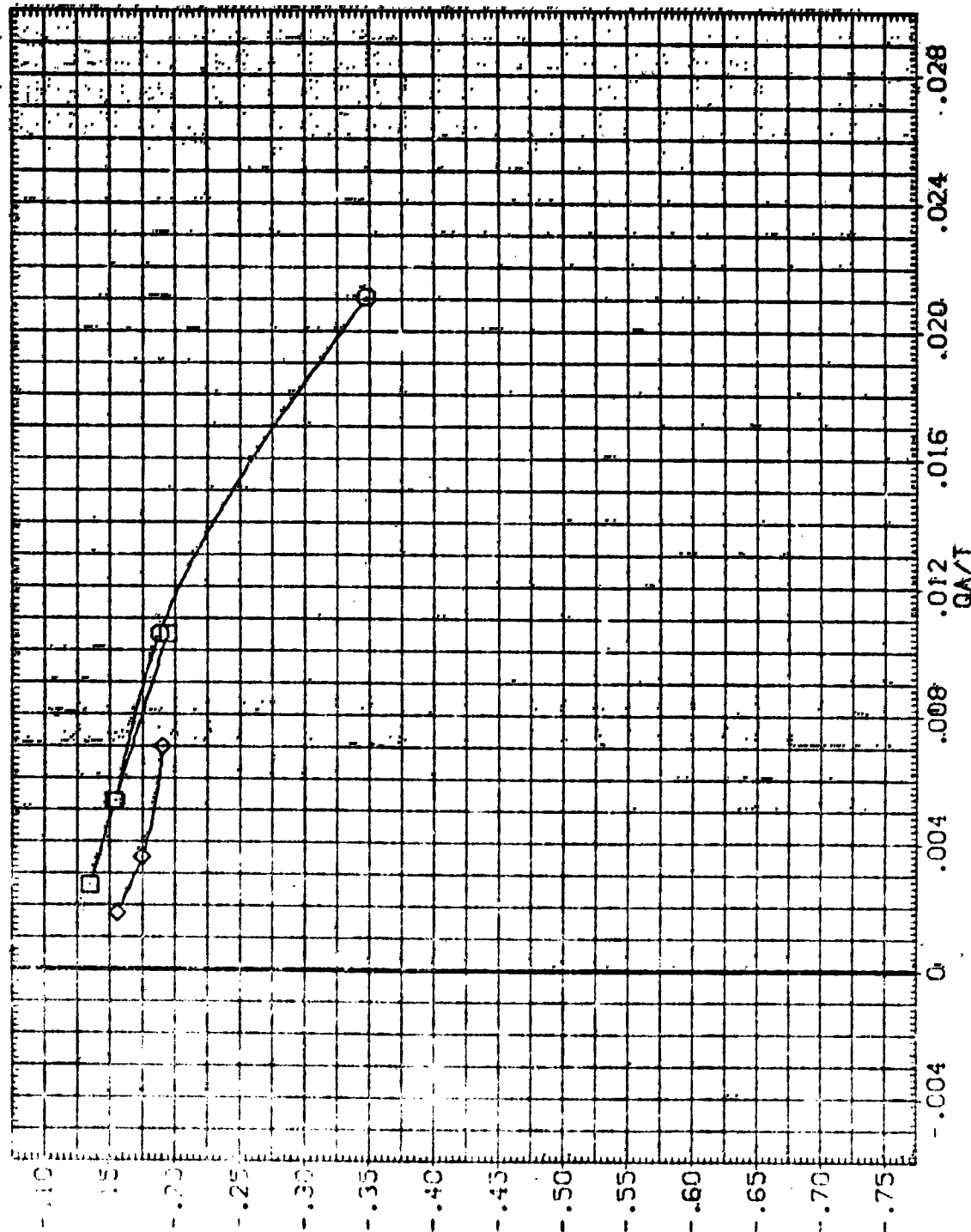
FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78-N52-N82

(K)ALPHA = 15.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SUA005) Q1N78 LARC CFT 118 (MA-22)
 (SUA107) Q1N52 LARC CFT 118 (MA-22)
 (SUA108) Q1N82 LARC CFT 118 (MA-22)

ELEVON NO. JET BOFLAP SETA
 .000 1.000 .000 .000
 .000 2.000 .000 .000
 .000 3.000 .000 .000

REFERENCE INFORMATION
 SREF 2650.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XWRP 1076.7000 IN. X
 YWRP 4000 IN. Y
 ZWRP 375.0000 IN. Z
 SCALE .0100



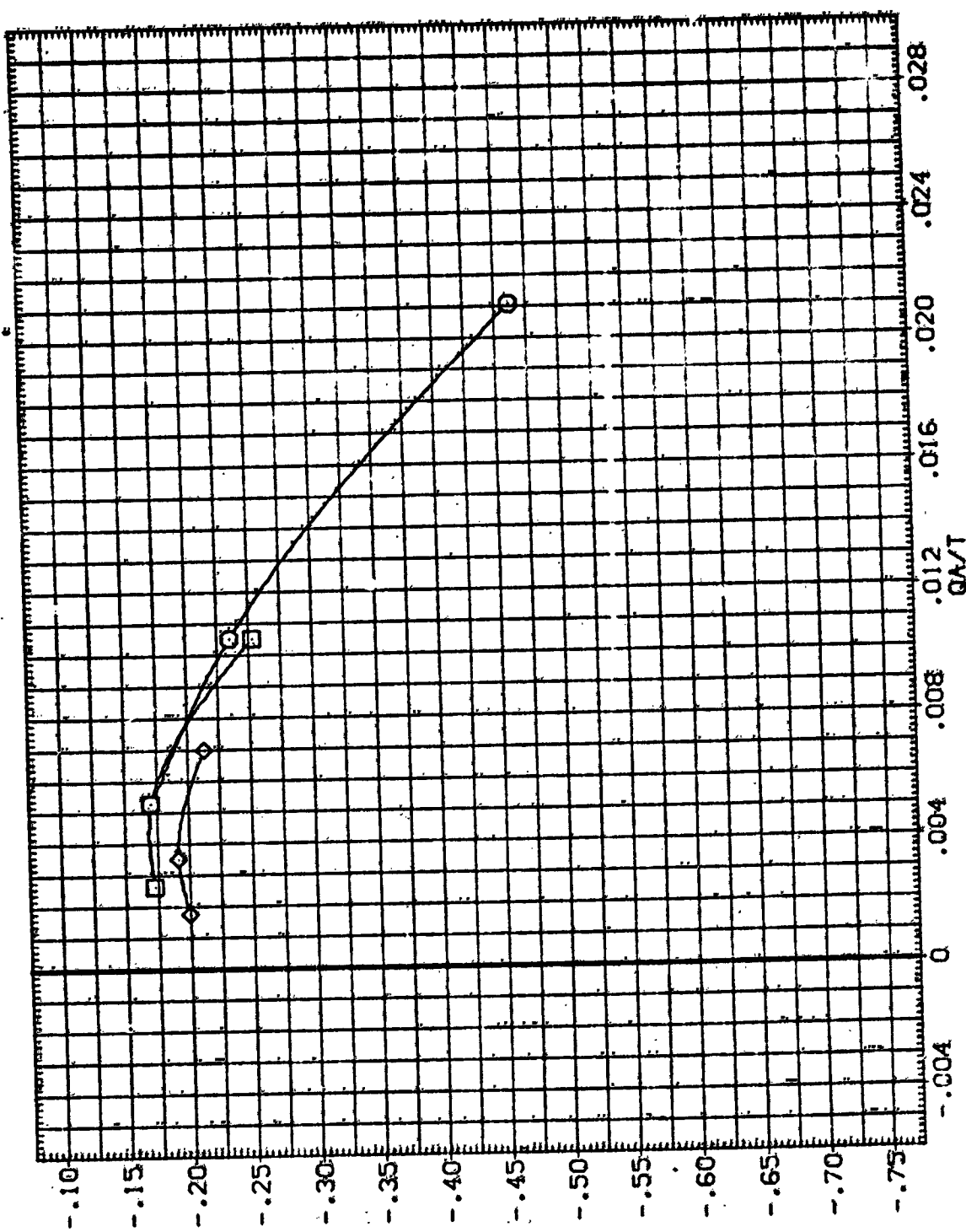
RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NSF

FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82

(ALPHA = 20.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA006) 01N78 LARC CENT 118 (MA-22)
 (SJA007) 01N52 LARC CENT 118 (MA-22)
 (SJA008) 01N82 LARC CENT 118 (MA-22)

ELEVON NO JET BOFLAP BETA REFERENCE INFORMATION
 .000 1.000 .000 SREF 26.0000 30 FT.
 .000 2.000 .000 LAREF 474.8000 INCHES
 .000 3.000 .000 BREF 936.6800 INCHES
 XERP 1675.2000 19.00
 YERP .0000 19.00
 ZERP 375.0000 19.00
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78, N52, N82

(M) ALPHA = 25.00

DATA SET	SUBSET	CONFIGURATION	DESCRIPTION
SWA003	1	LARC CE4T 118	(MA-22)
SWA004	1	LARC CE4T 118	(MA-22)
SWA005	1	LARC CE4T 118	(MA-22)

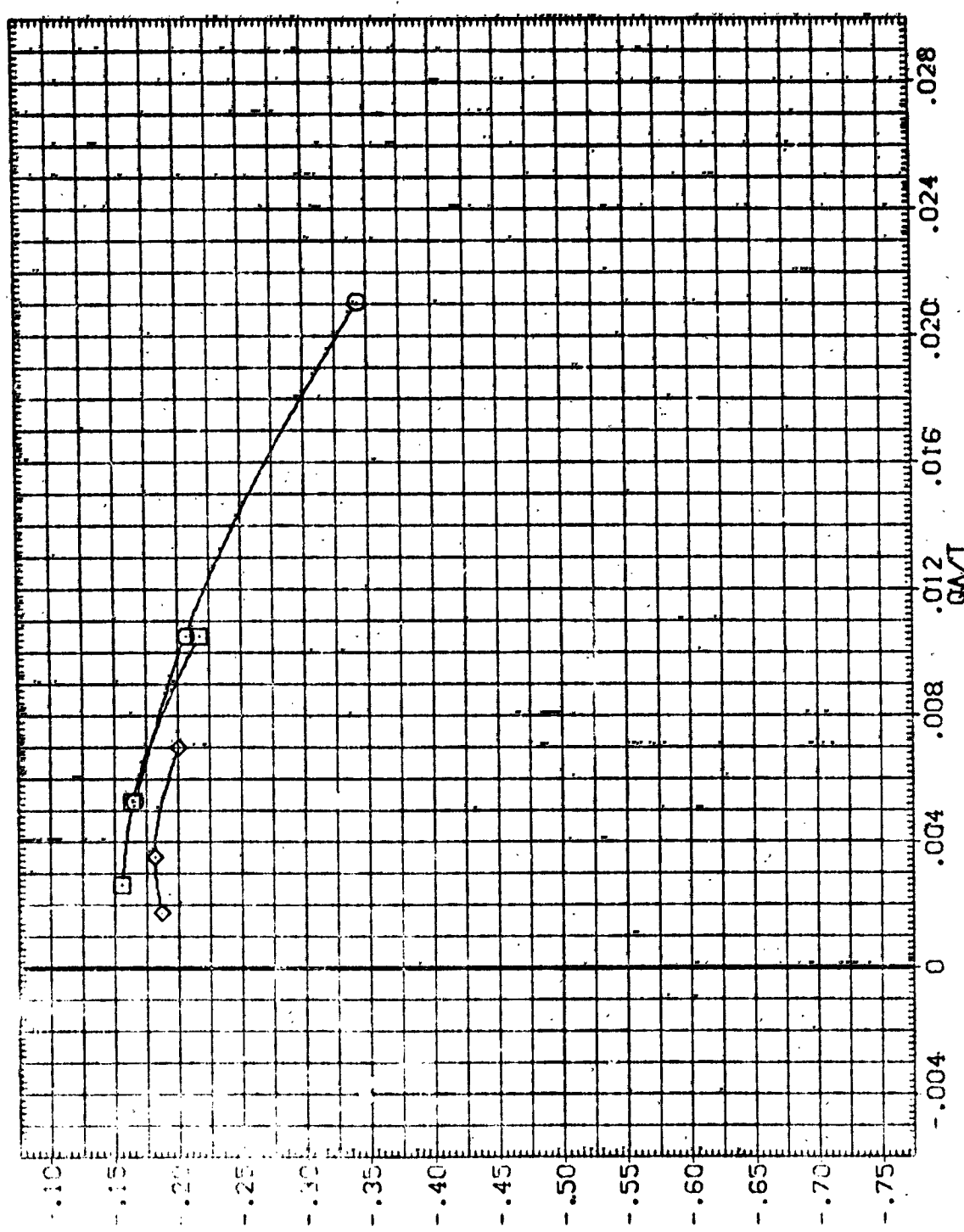


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS. N78-N52-N82

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(SJA006) 01N82 LARC CFHT 118 (MA-22)

(SJA007) 01N52 LARC CFHT 118 (MA-22)

(SJA008) 01N82 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA

.000 1.000 .000 .000

.000 2.000 .000 .000

.000 3.000 .000 .000

REFERENCE INFORMATION

SREF 590.0000 SO. FT.

LREF 474.8000 INCHES

BREF 936.8800 INCHES

XMRP 1076.7000 IN. X0

YMRP .0000 IN. Y0

ZMRP 375.0000 IN. Z0

SCALE .0100

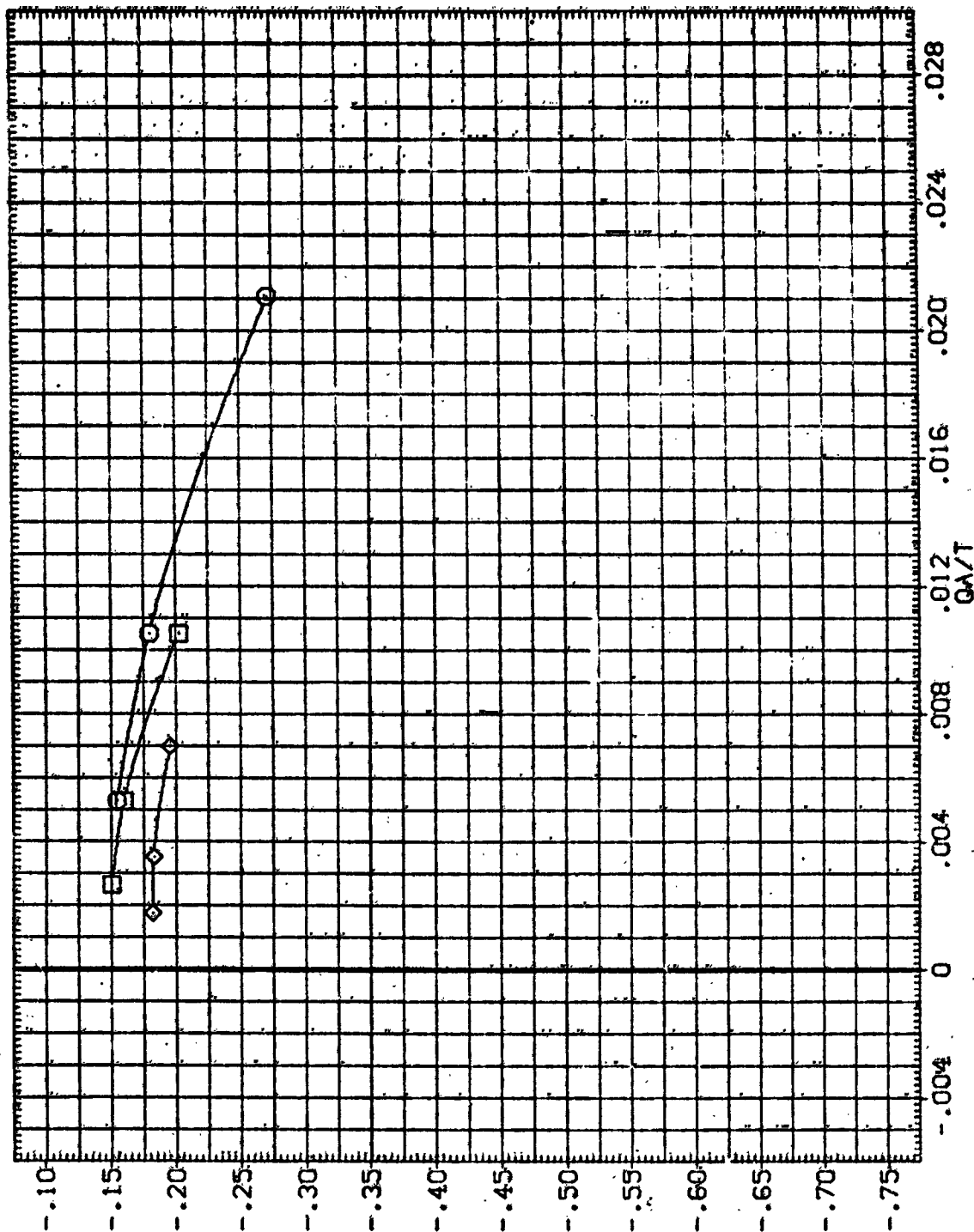


FIGURE 27. EFFECT OF MULTIPLE JET RCS FIRINGS, N78,N52,N82

(O) ALPHA = 35.00

DATA SET SYMBOL: 0179-78 LARC CFHT 118 (MA-22)

ELEVON: .000 NO. JET: 2.000 90° CLAP: .000 BETA: .000

REFERENCE INFORMATION:

SRCS	2690.0000	SO. FT.
LREF	474.8000	INCHES
BREF	936.8000	INCHES
XGRP	1078.7000	IN. X0
YGRP	.0000	IN. Y0
ZGRP	375.0000	IN. Z0
SCALE	.0100	

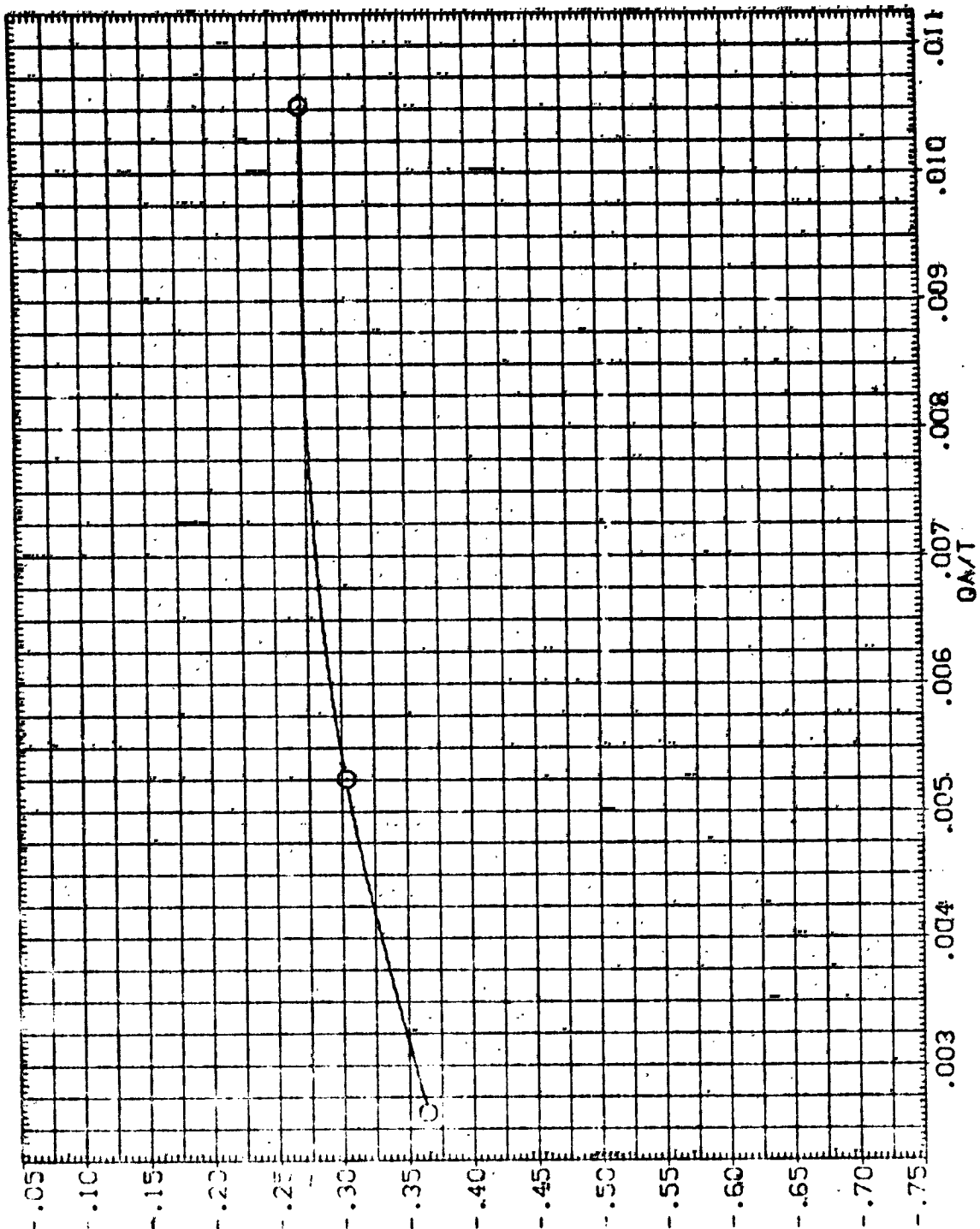


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(A) ALPHA = -8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA008) O Q1N79N78 LARC CFMT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA
.008 2.000 .000

REFERENCE INFORMATION
SREF 2630.000 SQ. FT.
LREF 474.800 INCHES
BREF 936.6800 INCHES
XMRP 1876.7000 IN. X
YMRP .0000 IN. Y
ZMRP 375.0800 IN. Z
SCALE .0100

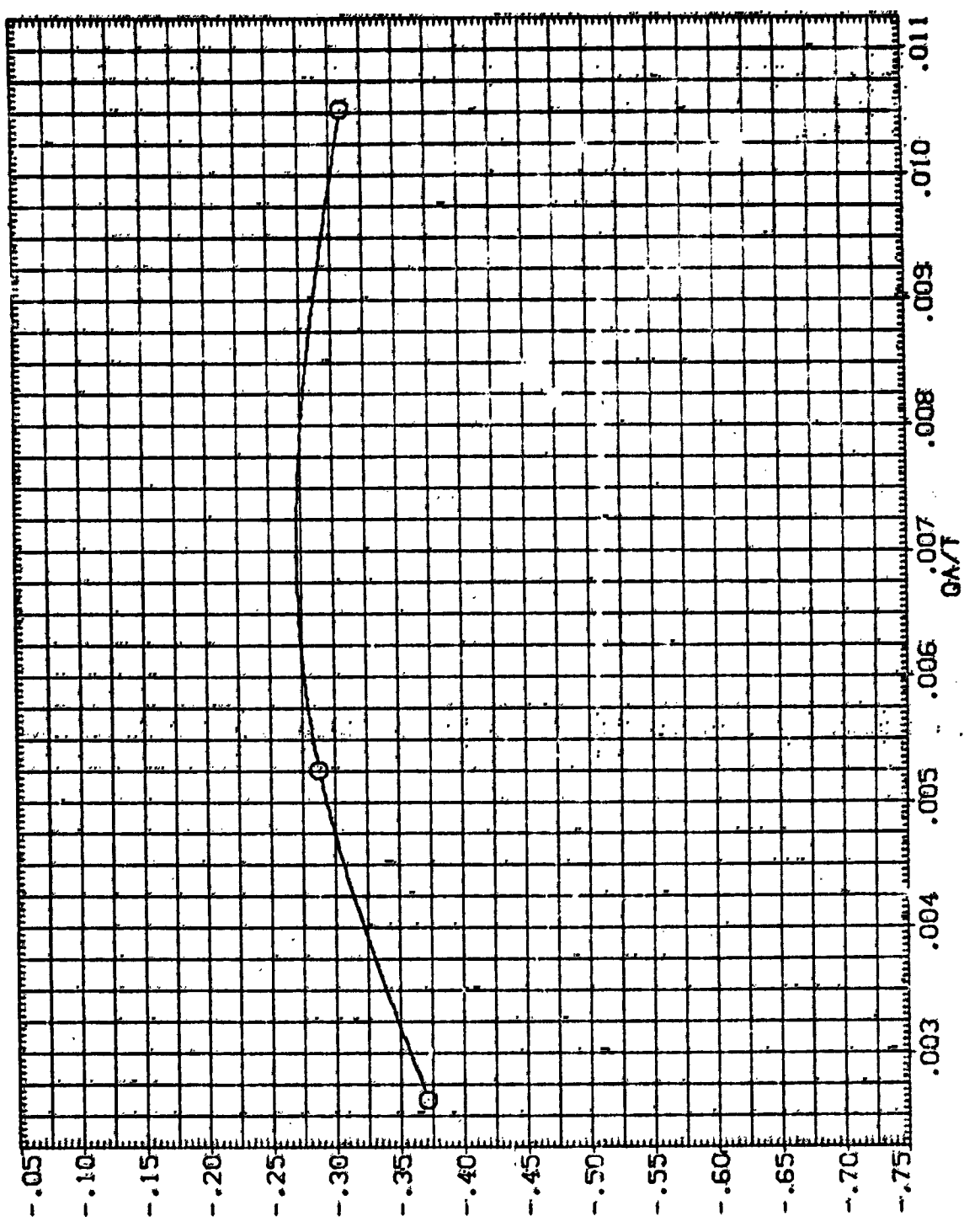


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(B) ALPHA = -6.00

DATA SET SYMBOL: C1N79N13
 CONFIGURATION DESCRIPTION: LARC UFGT 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BDFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XPRP: 1076.7000 IN. 10
 YPRP: .0000 IN. 10
 ZPRP: 375.0000 IN. 20
 SCALE: .0100

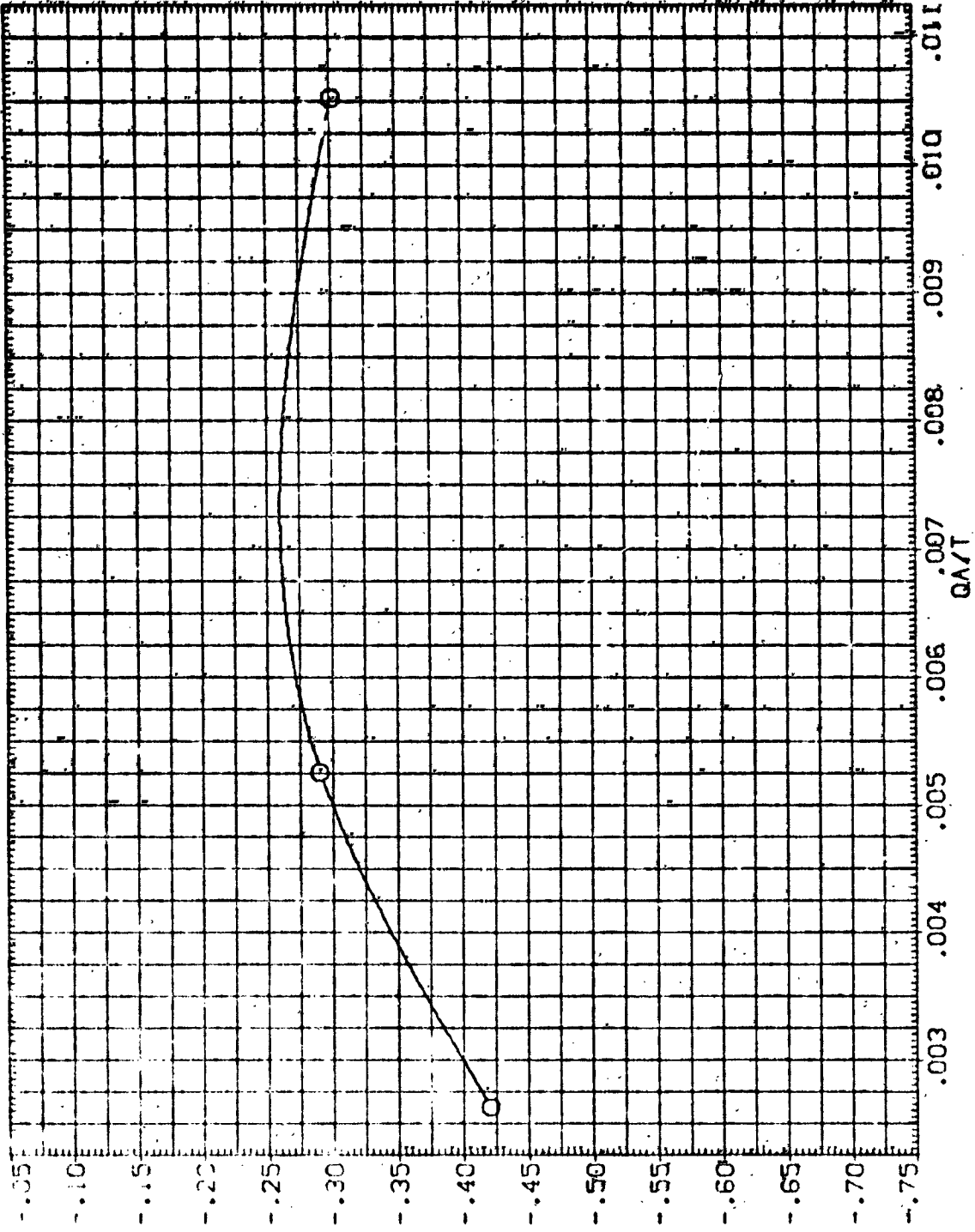


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(C) ALPHA = -4.00

DATA SET SYMBOL Q CONFIGURATION DESCRIPTION
(SJA009) Q Q179N78 LARC CFM3 118 (MA-22)

ELEVON .000 NO-JET 2.000 BOFLAP .008 BETA .000

REFERENCE INFORMATION
SREF 2690.0800 50.FT.
LREF 474.8000 INCHES
BREF 936.6000 INCHES
XPRP 1076.7000 IN. X
YPRP .0000 IN. Y
ZPRP 345.0000 IN. Z
SCALE .0010

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

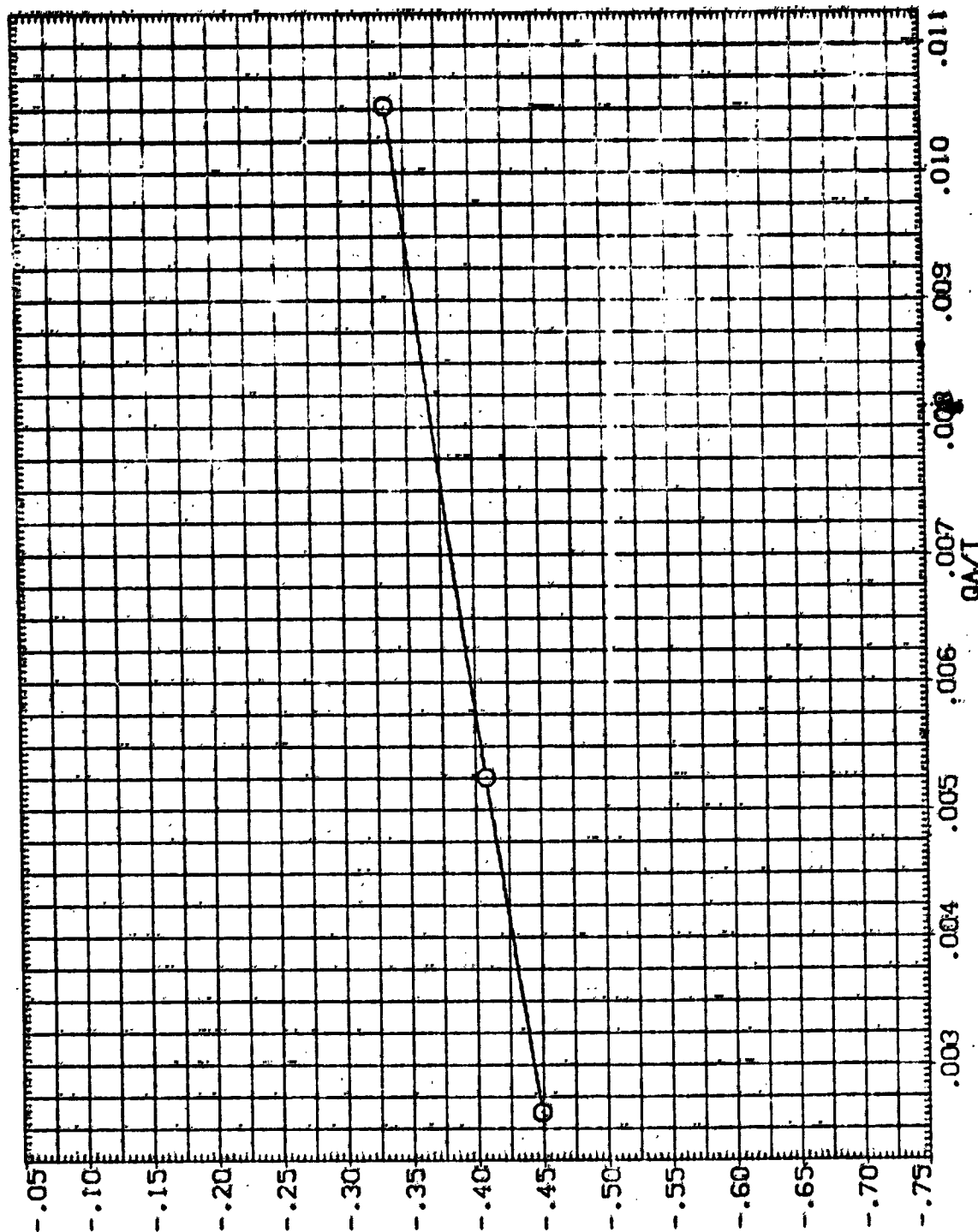


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(O) ALPHA = -2.00

DATA SET SYMBOL: 014209 J
 CONFIGURATION DESCRIPTION: LARC CFT 118 (MA-22)
 REFERENCE INFORMATION:
 SQ.FT.: 2690.0000
 INCHES: 474.8000
 LREF: 536.6800
 BREF: 1076.7000
 IN. AS: 375.0000
 IN. VS: 375.0000
 ZPRP: .0100
 SCALE

ELEVON: .000
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000

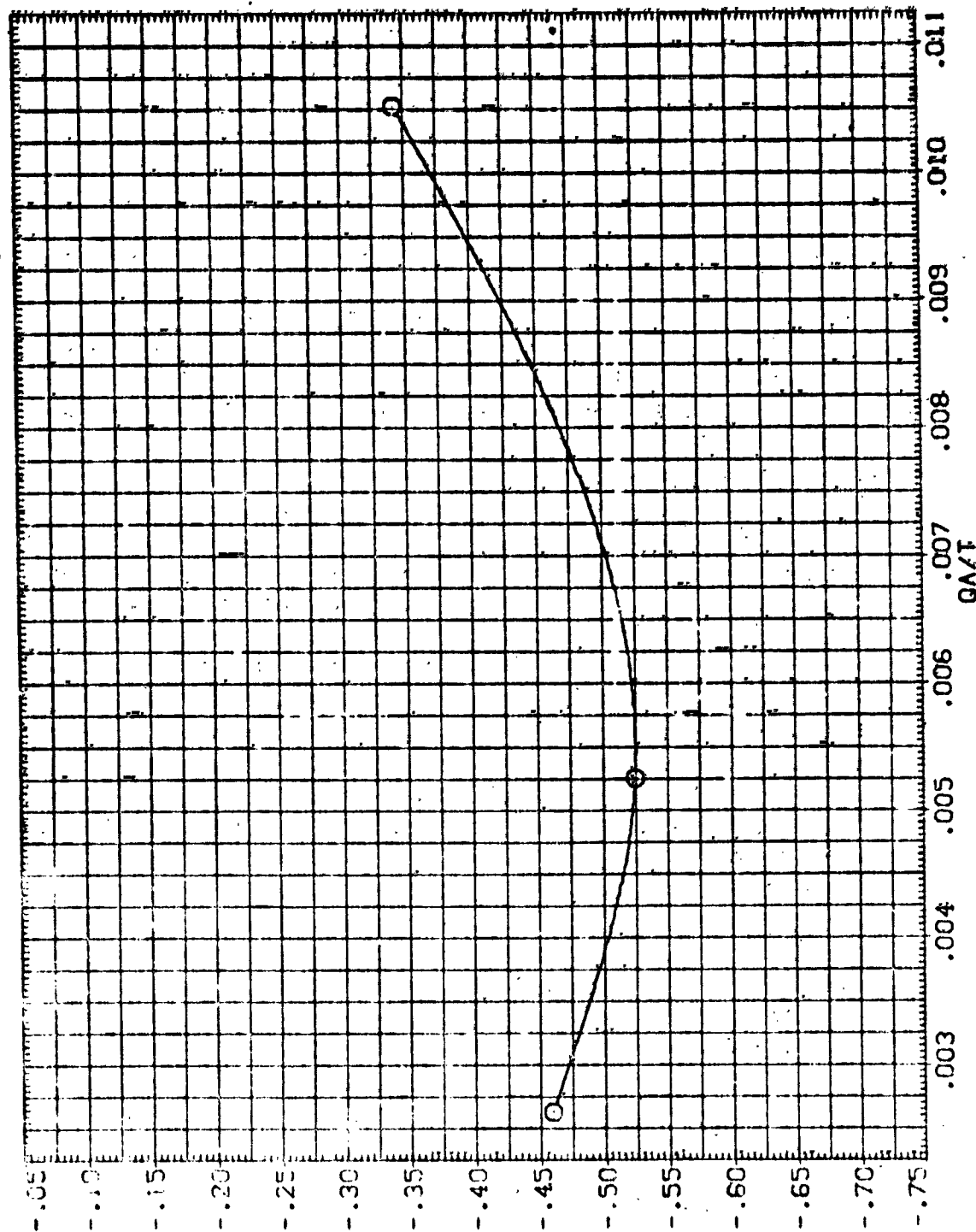


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(E)ALPHA = .00

DATA SET SYMBOL: Q1N79N78
 CONFIGURATION DESCRIPTION: LARE CFMT 118 (NA-221)

ELEVON: .000
 NO. JET: 2.000
 BDFLAP: .000
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 476.8000 INCHES
 BREF: 926.5800 INCHES
 XPRP: 1076.7000 IN. 10
 YPRP: .0000 IN. 10
 ZPRP: 375.0000 IN. 20
 SCALE: .0100

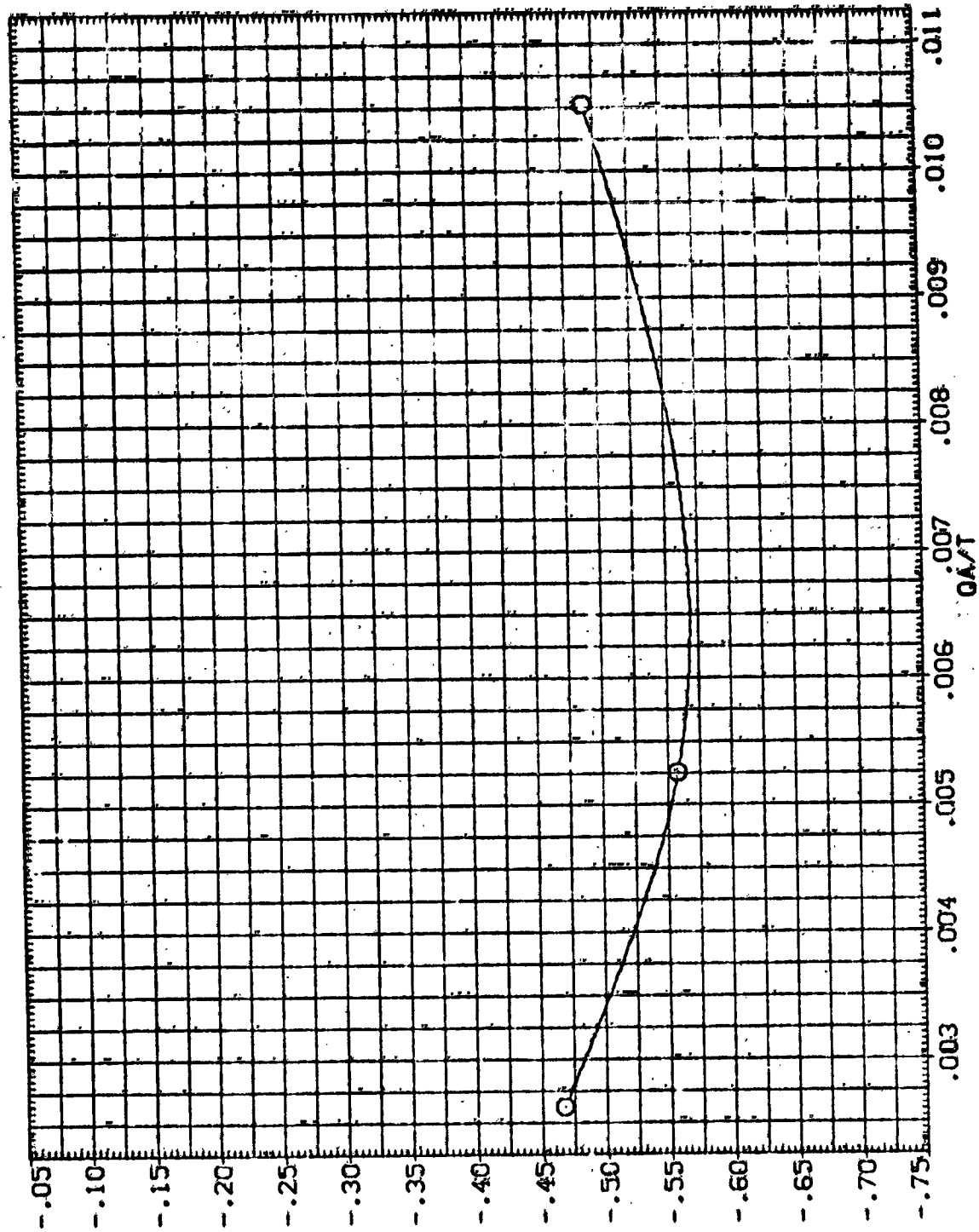


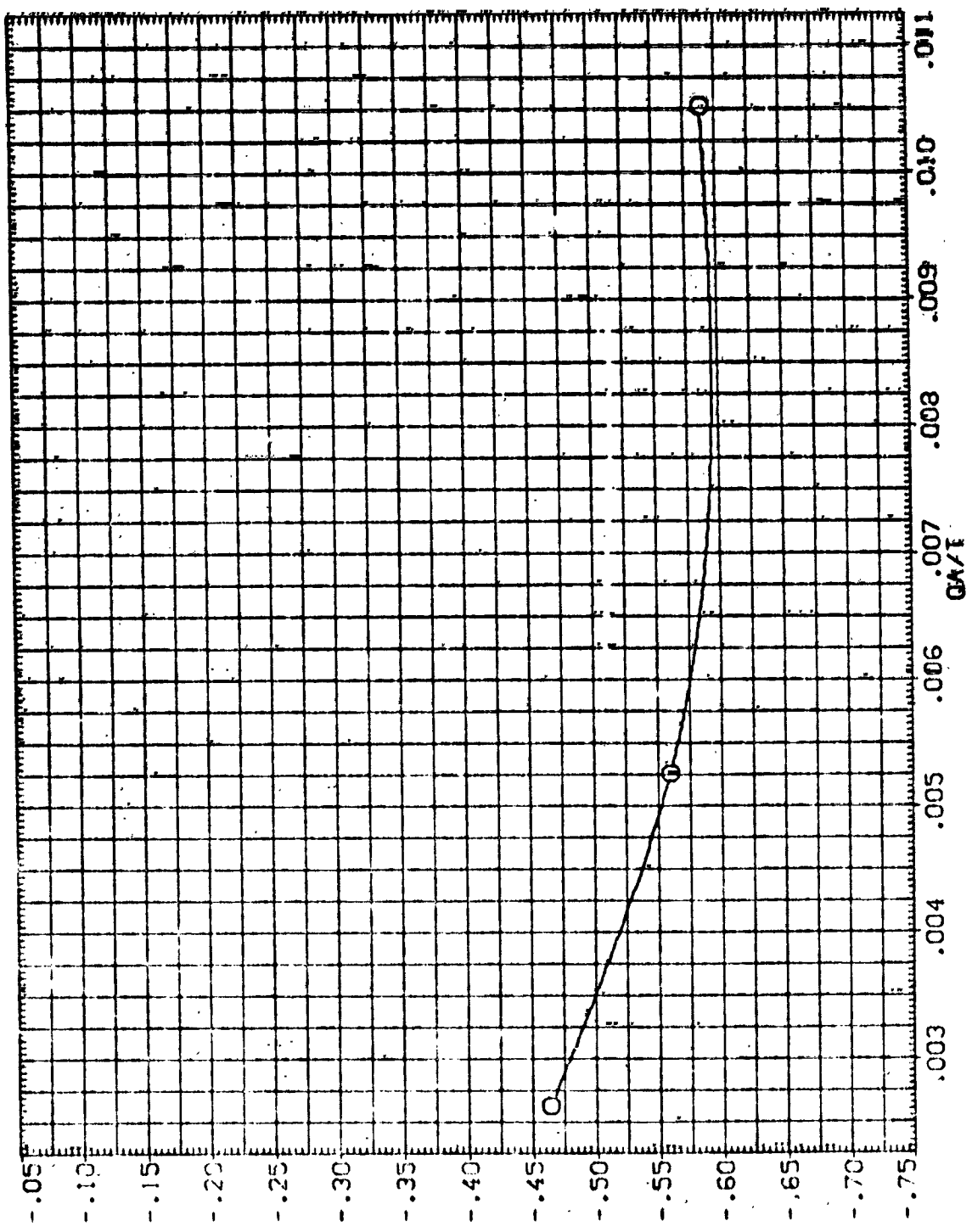
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(FJALPHA = 2.00)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SND09) O C1N79N78 LARC CFMT 118 (MA-22)

ELEVON .000 NO-JET 2.000 B9FLAP .600 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SD-FT.
 LREF 424.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. X0
 YREF 395.0000 IN. Y0
 ZREF 395.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, NNP)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(G)ALPHA = 4.00

DATA SET SYMBOL: 01N79N78 LARC CFMT 118 (HA-22)

ELEVON NO. JET 80FLAP 0BETA .000 .000 .000

REFERENCE INFORMATION
SREF 2630.0000 SD FT.
LREF 424.8000 INCHES
BREF 925.6800 INCHES
XREF 1086.7000 IN. TO
YREF .0000 IN. TO
ZREF 375.0000 IN. TO
SCALE .0100

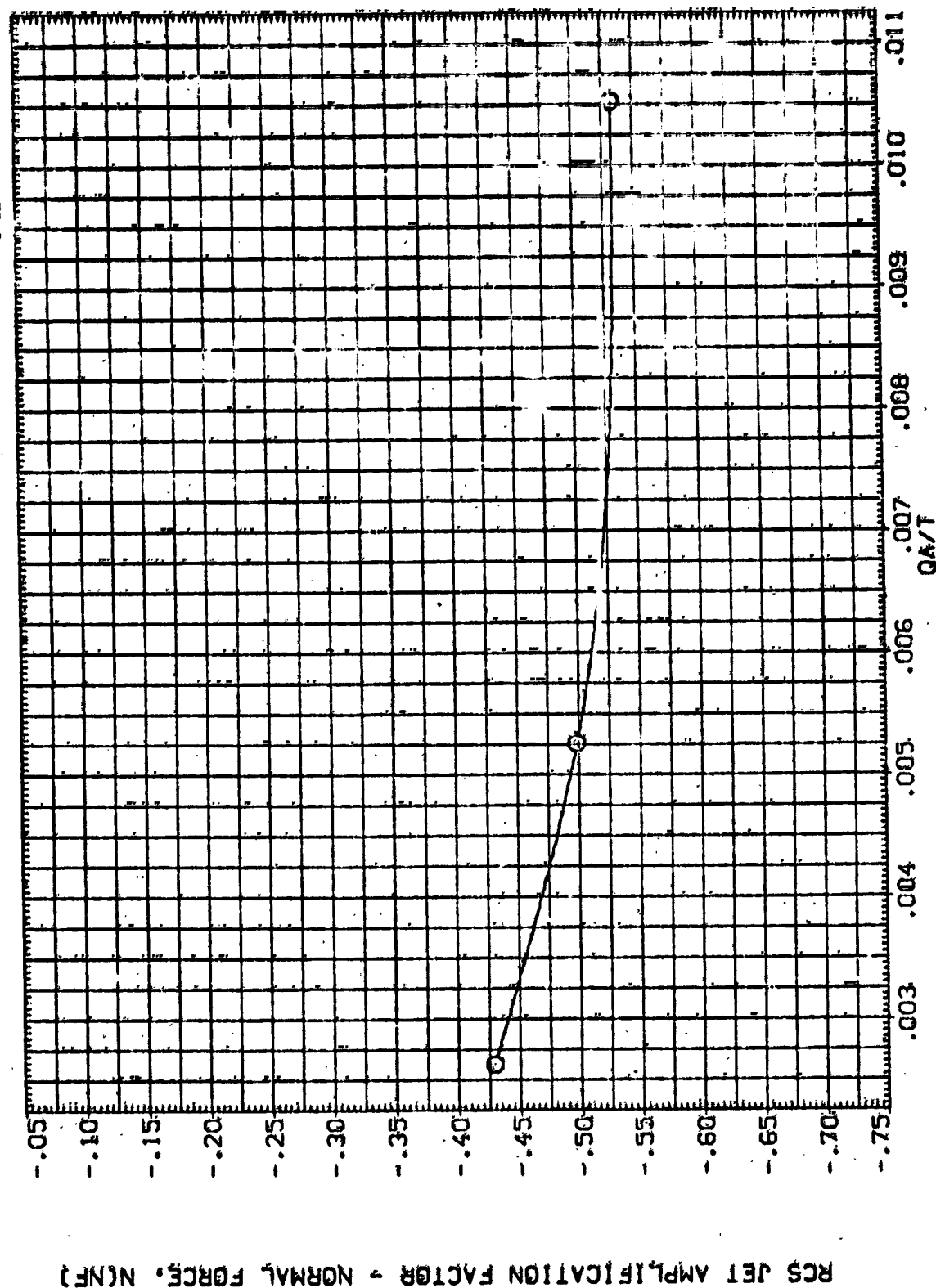


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(H)ALPHA = 6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(50-009) O C1N79N78 LARC CPHI 118 (MA-22)

ELENO 0.003 NO-JET 2.000 BOFLAP 0.000 BETA 0.060

REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
SREF 474.8000 INCHES
SREF 935.6800 INCHES
MREF 1076.7000 IN. X
VREF 0.0000 IN. X
WREF 375.0000 IN. X
SCALE 0.0100

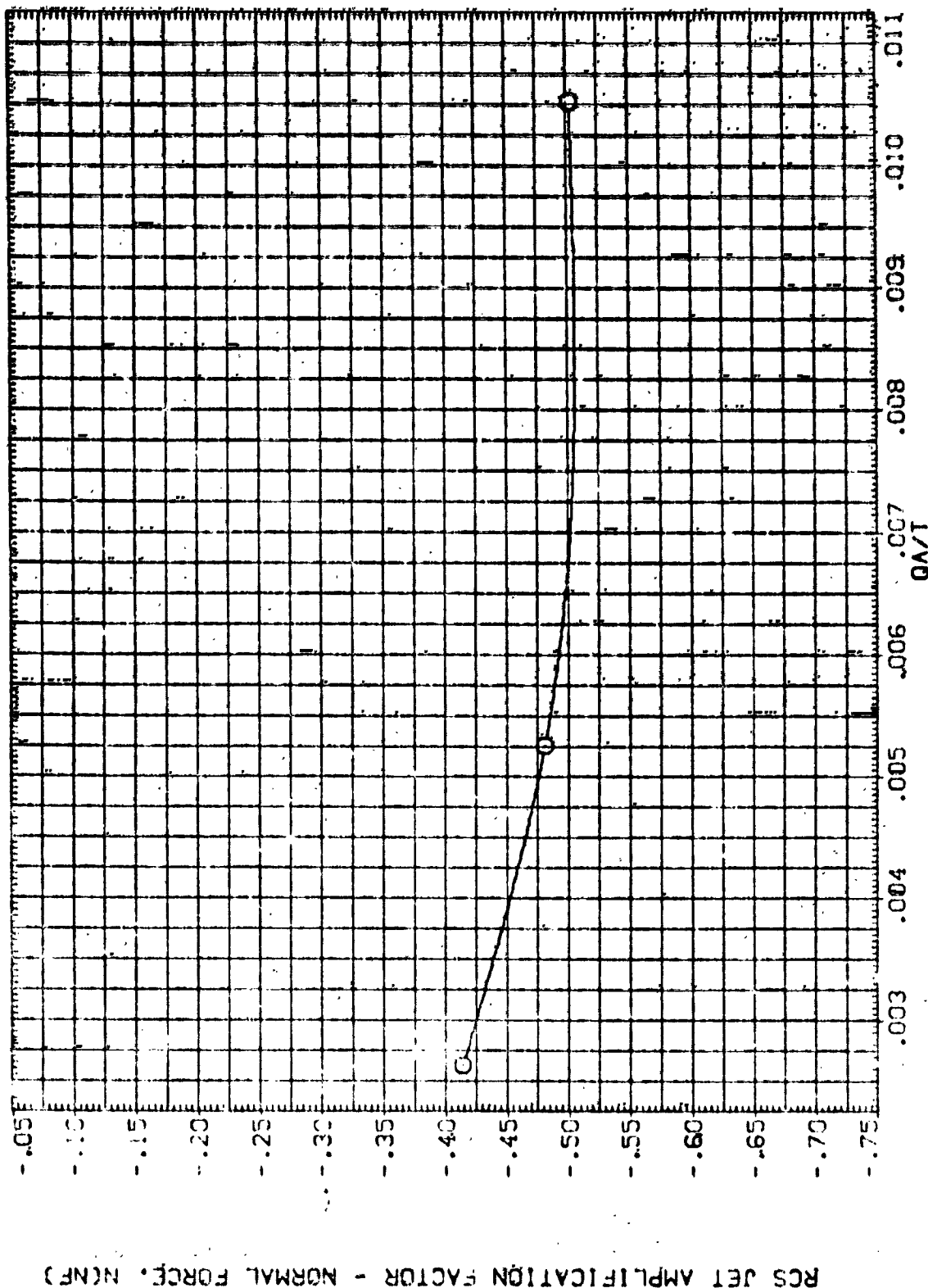


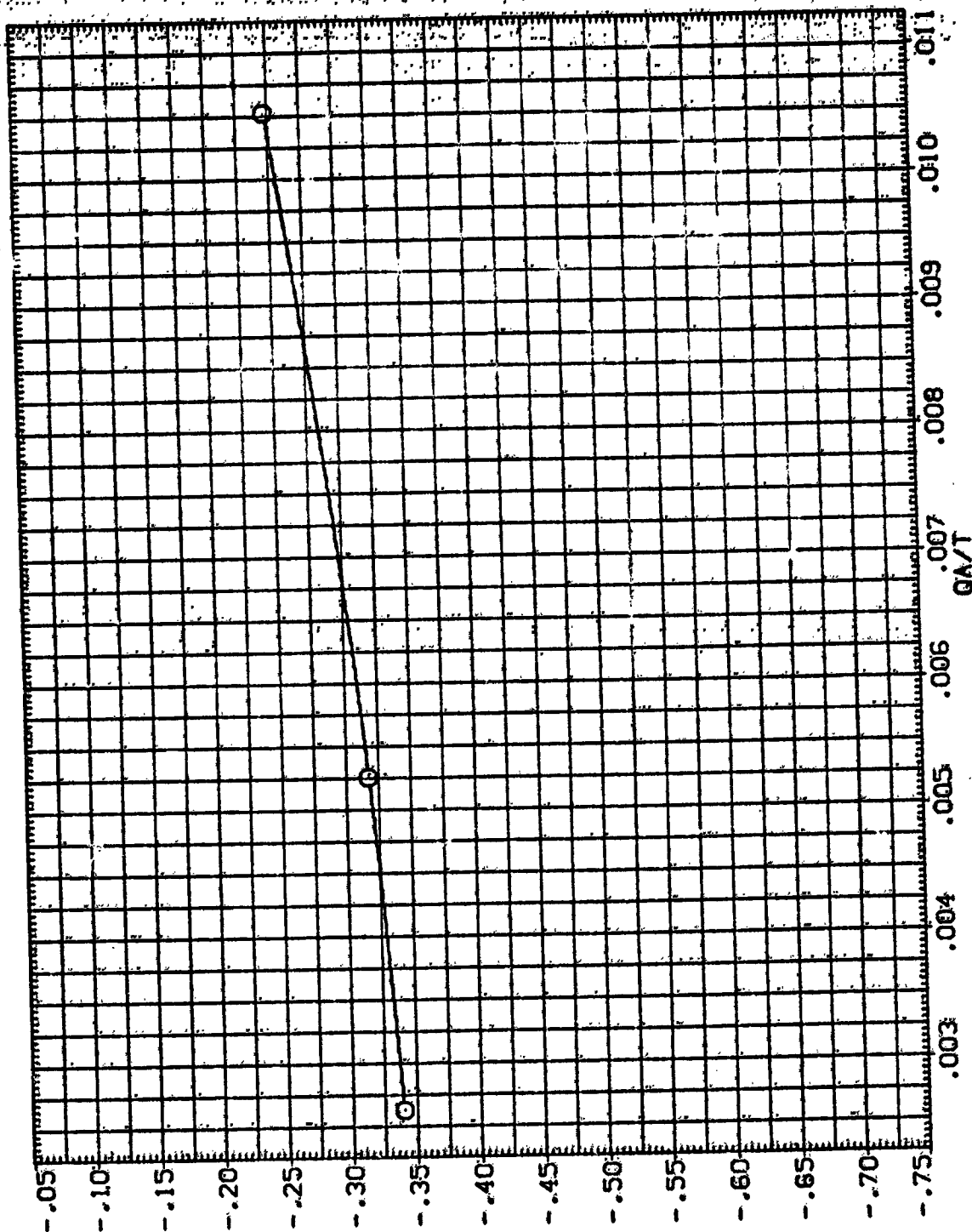
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N70

(1) ALPHA = 8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 ('SJAD091' 0 01N79N78 LARC CFHT 118 8MA-22)

ELEVON NO. JET BOFLAP BETA
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2650.0000 40.107
 LREF 474.8000 INCHES
 RREF 336.8800 INCHES
 XTREF 1076.7000 IN. YD
 YMRP .0000 IN. YD
 ZMRP 323.0000 IN. ZD
 SCALE .0100



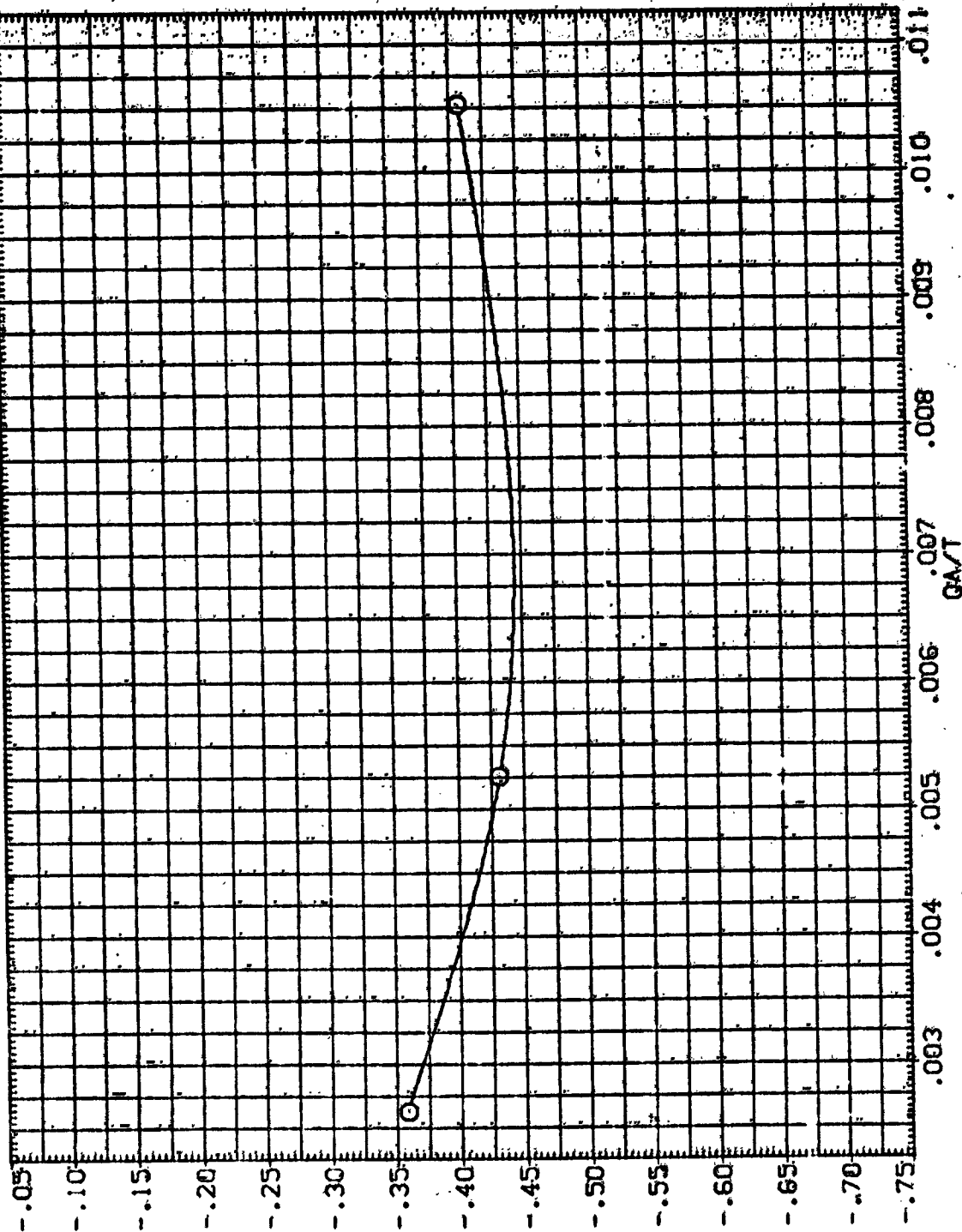
RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(J)ALPHA = 10.00

DATA SET SYMBOL (SJA009) ○ CONFIGURATION DESCRIPTION 01N79N78: LARE CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION
 .090 2.008 .000 .000
 SREF 2690.0000 50 FT
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XRRP 1976.7000 IN. 10
 YRRP .0000 IN. 10
 ZRRP 375.0000 IN. 20
 SCALE .0100



RCS JET AMPLIFICATION FACTOR = NORMAL FORCE. (N/NF)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(KIALPHA = 15.00)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA005) O 01N79N78 LARC CFMT 118 (MA-22)

ELEVON .008 NO. JET 2.000 BOFLAP .000 BETA .000
REFERENCE INFORMATION
SREF 2698.0000 50. FT.
LREF 424.8000 INCHES
BREF 936.6800 INCHES
XPRP 1076.7000 IN. TO
YPRP .0000 IN. TO
ZPRP 375.0000 IN. TO
SCALE .0100

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

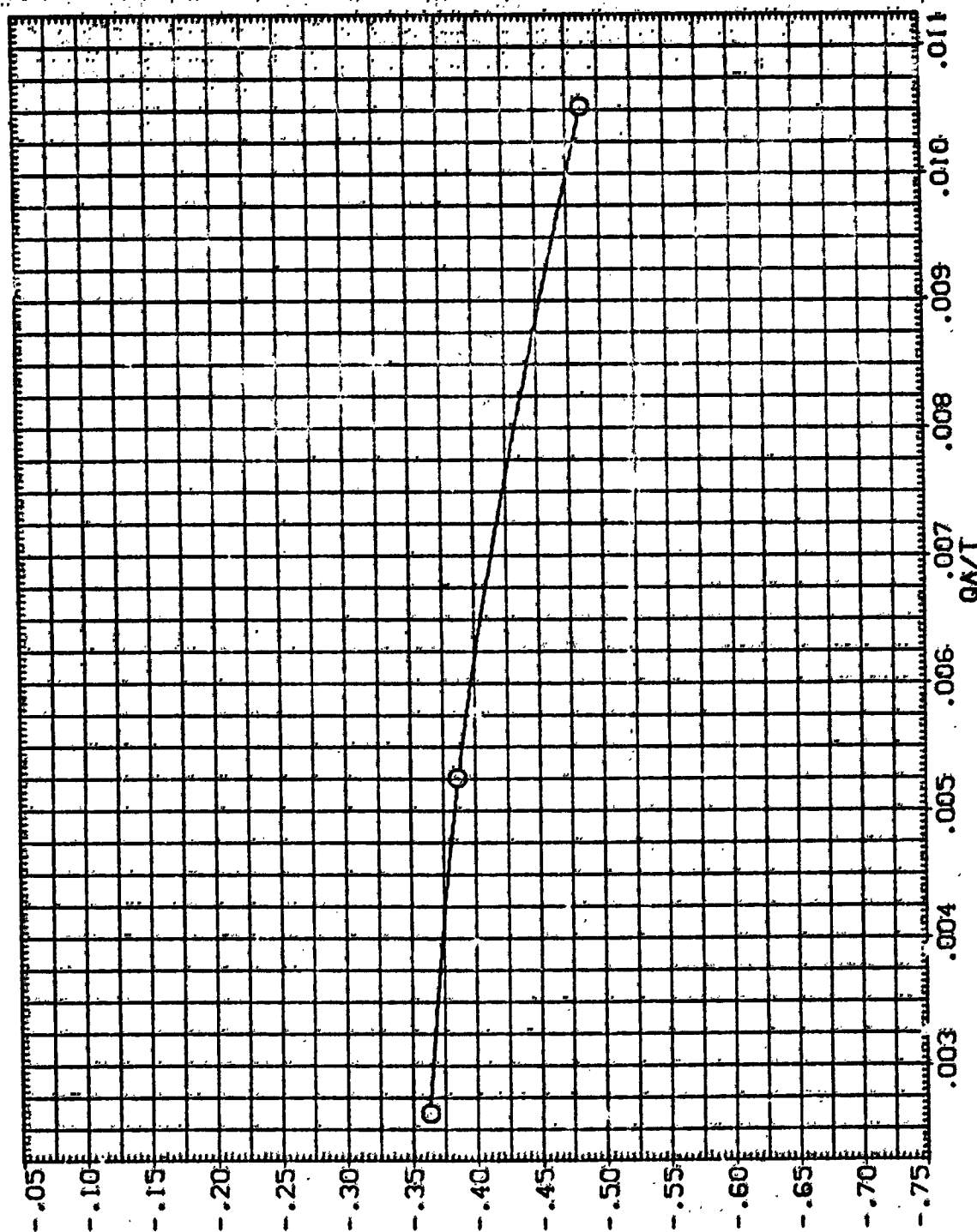


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(L) ALPHA = 20.00

DATA SET SYMBOL (SJA009) \bigcirc CONFIGURATION DESCRIPTION (MA-22) 0: N79N78 LARC CFHT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR = NORMAL FORCE, N(NF)

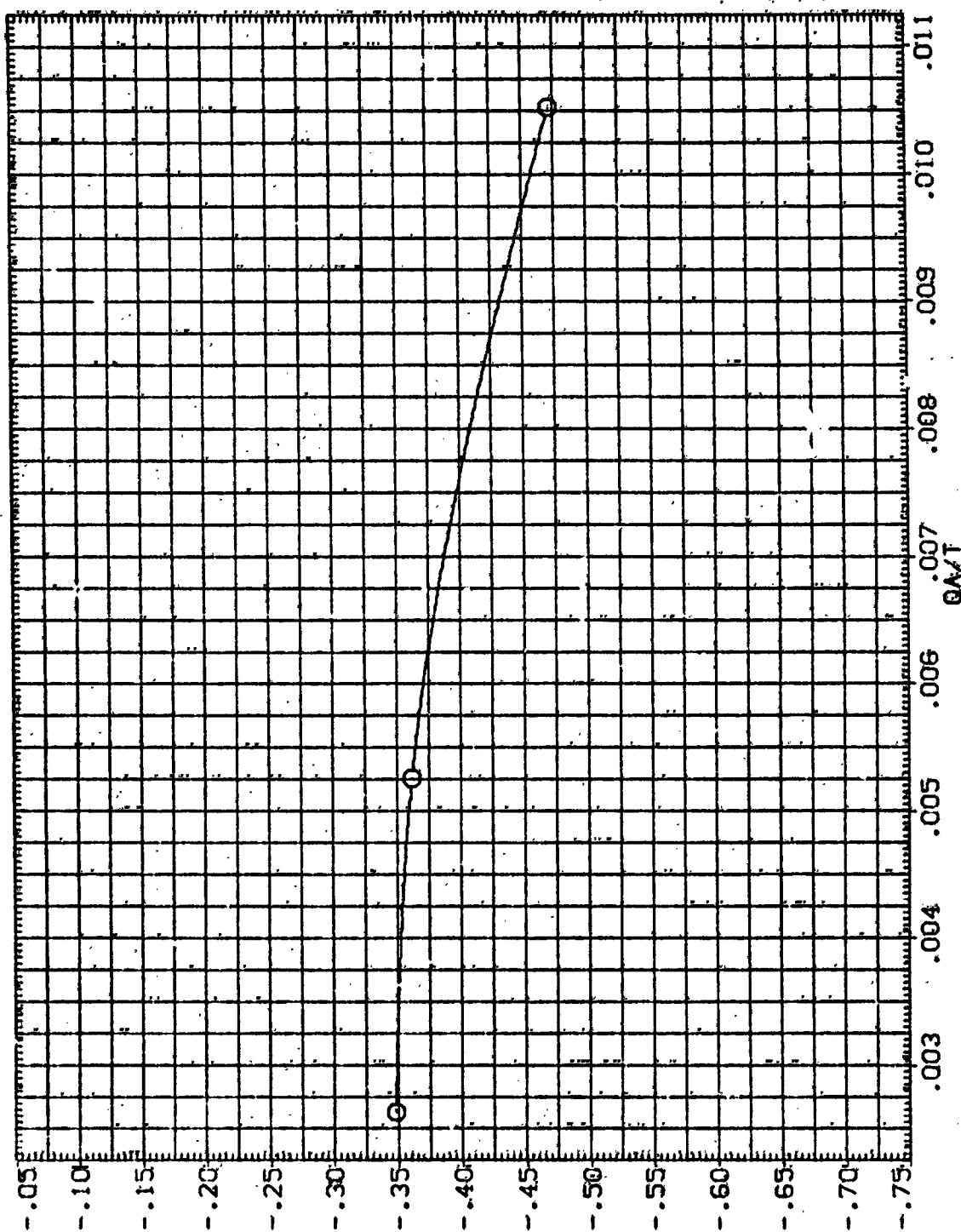


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(M) ALPHA = 25.00°

DATA SET SYMBOL (SJA009) O 01N79N78 LARC CFHT 118 (CA-22)

ELEVON .000 NO. JET 2.600 BOFLAP .000 BETA .008

REFERENCE INFORMATION
 SREF 2690.0000 50. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XGRP 1075.7000 IN. X0
 YGRP .0800 IN. Y0
 ZGRP 325.0800 IN. Z0
 SCALE .0100

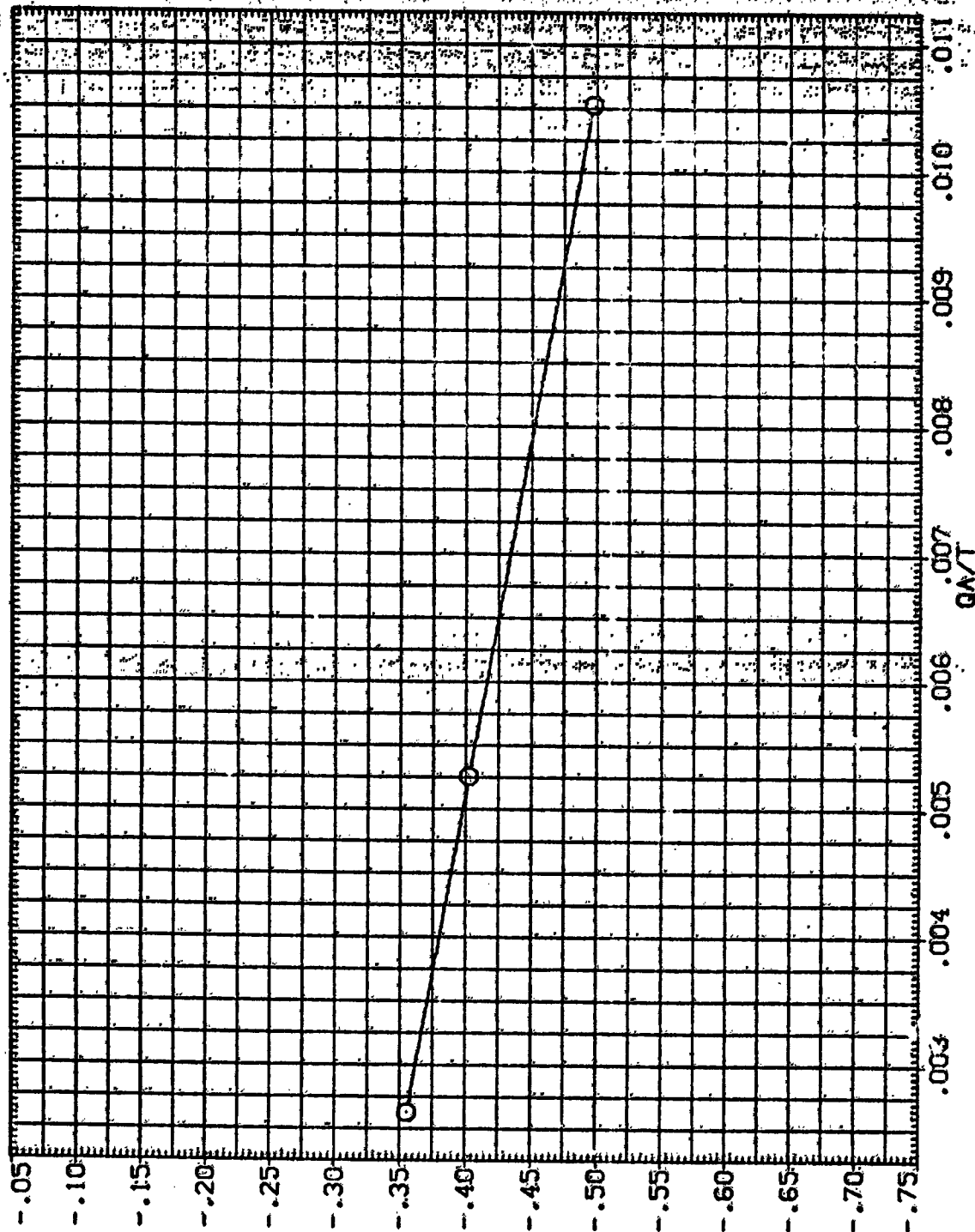


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

CNIALPHA = 30.00

DATA SET: SYMBOL O CONFIGURATION DESCRIPTION
 (SJA0093) O C1N79N78 LARC CFMT 118 CMA-221

ELEVON: .000 NO JET 88FLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2590.0000 50 FT
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

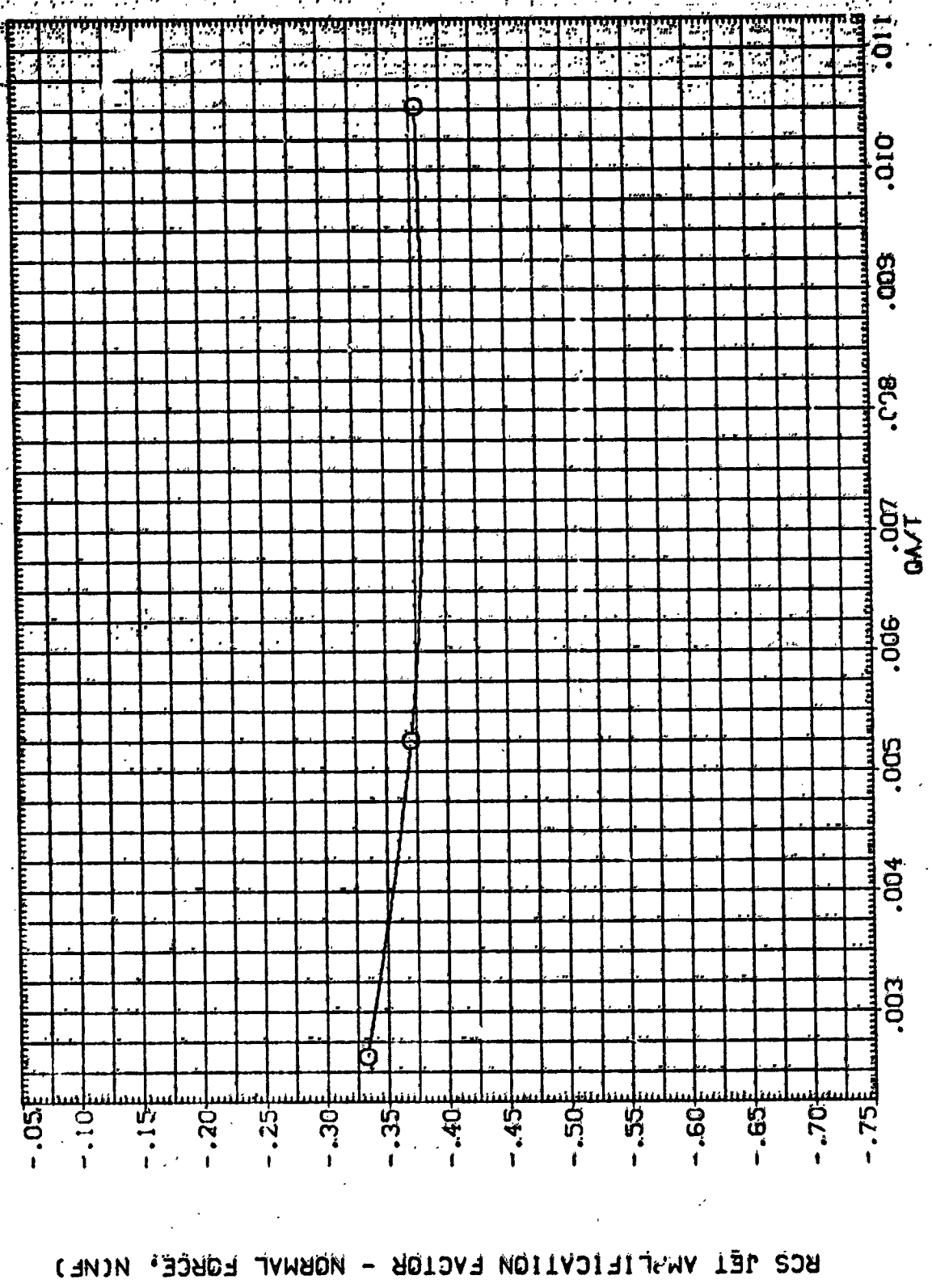


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(O) ALPHA = 35.00

DATA SET SYMBOL: 01N79N78
 CONFIGURATION DESCRIPTION: LARC CFHT 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BDF LAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. 20
 YMRP: .0000 IN. 20
 ZMRP: 375.0000 IN. 20
 SCALE: .0100

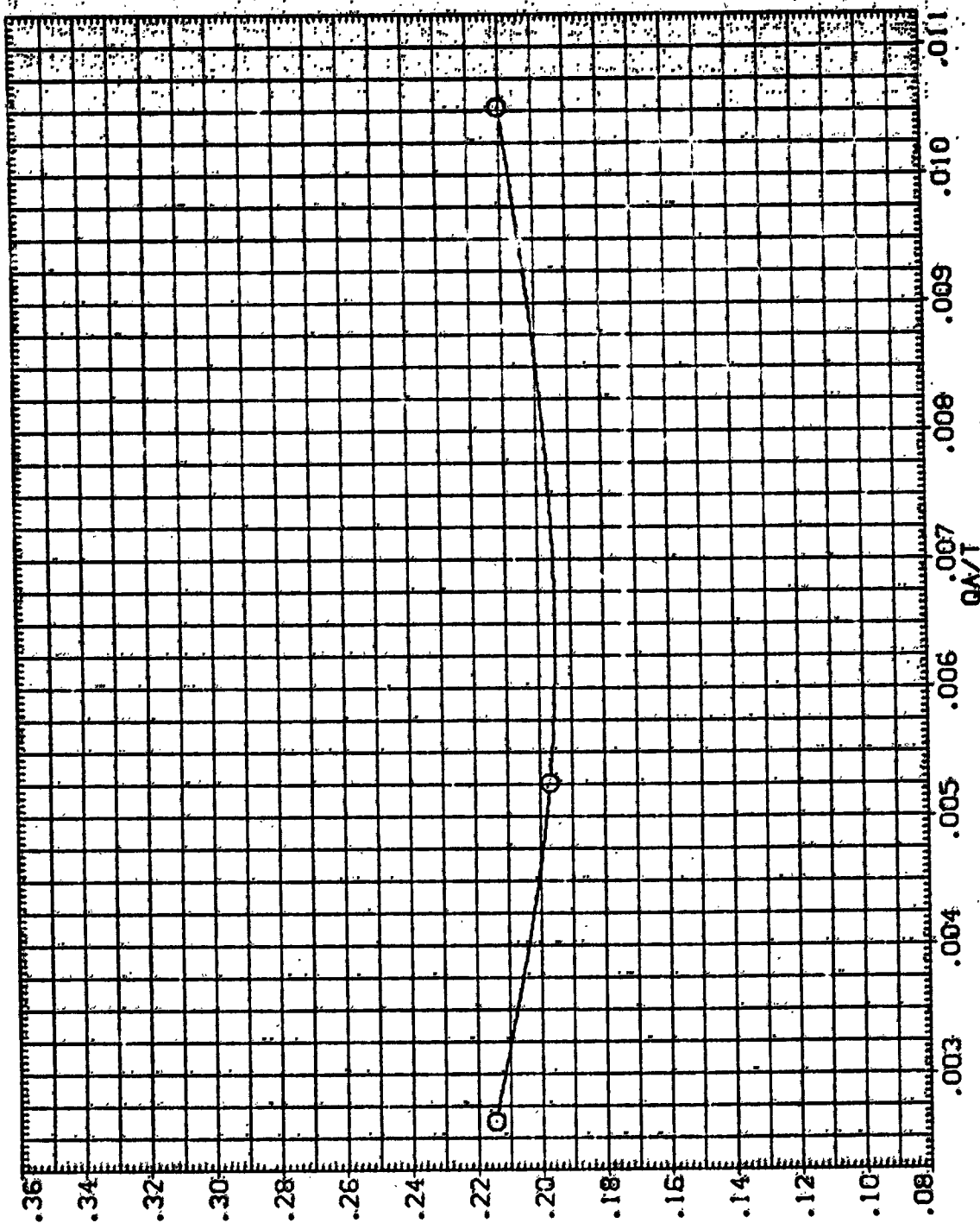


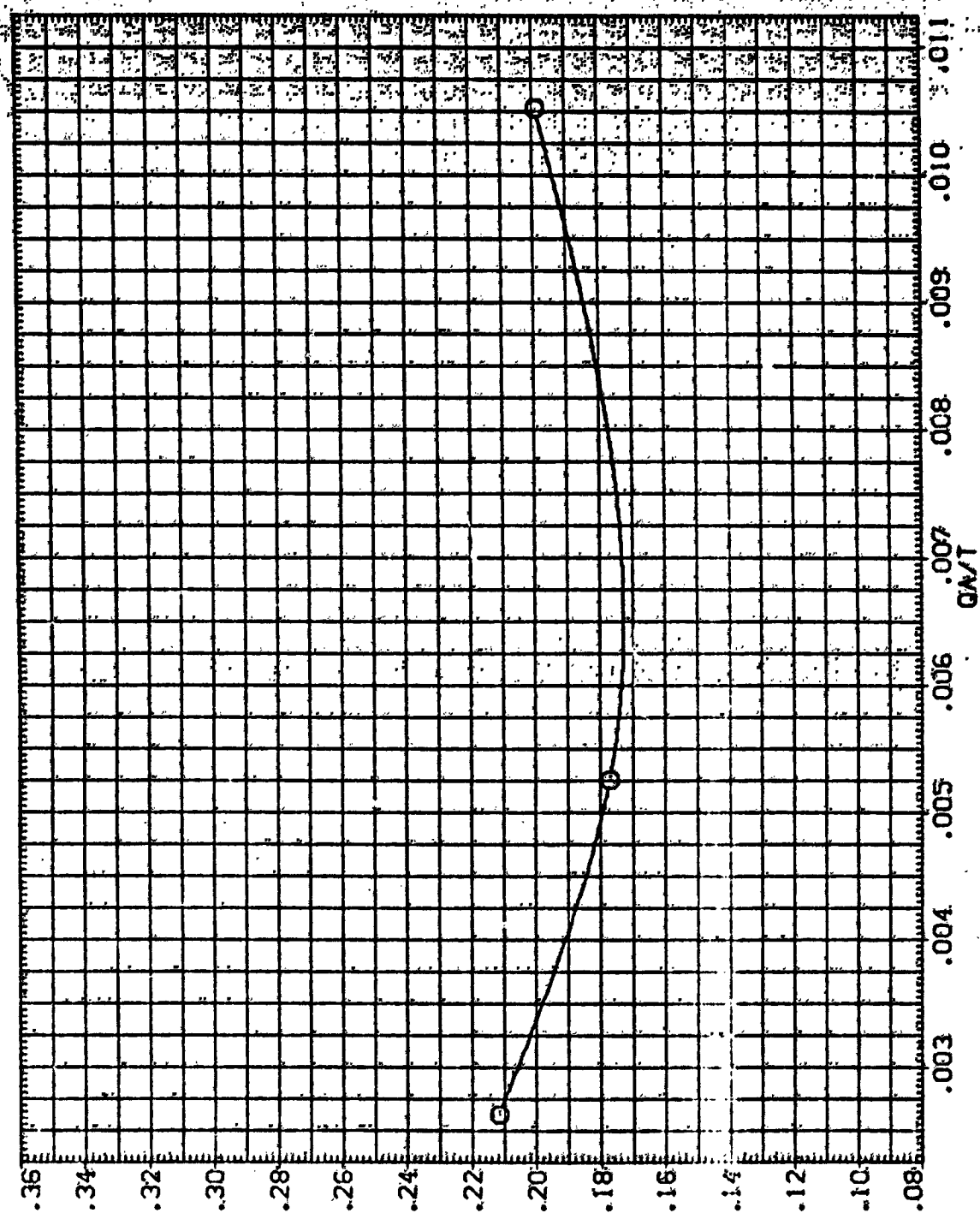
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

CAJALPHA = -8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJM009) ○ G1N79N78 LARC GFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
 .000 2.000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 IN: 70
 LREF 474.8000 IN: 10
 BREF 936.6800 IN: 10
 XMRP 1076.7000 IN: 10
 YMRP .0000 IN: 70
 ZMRP 375.0000 IN: 70
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - PITCH, N(RM)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(B) ALPHA = -5.00

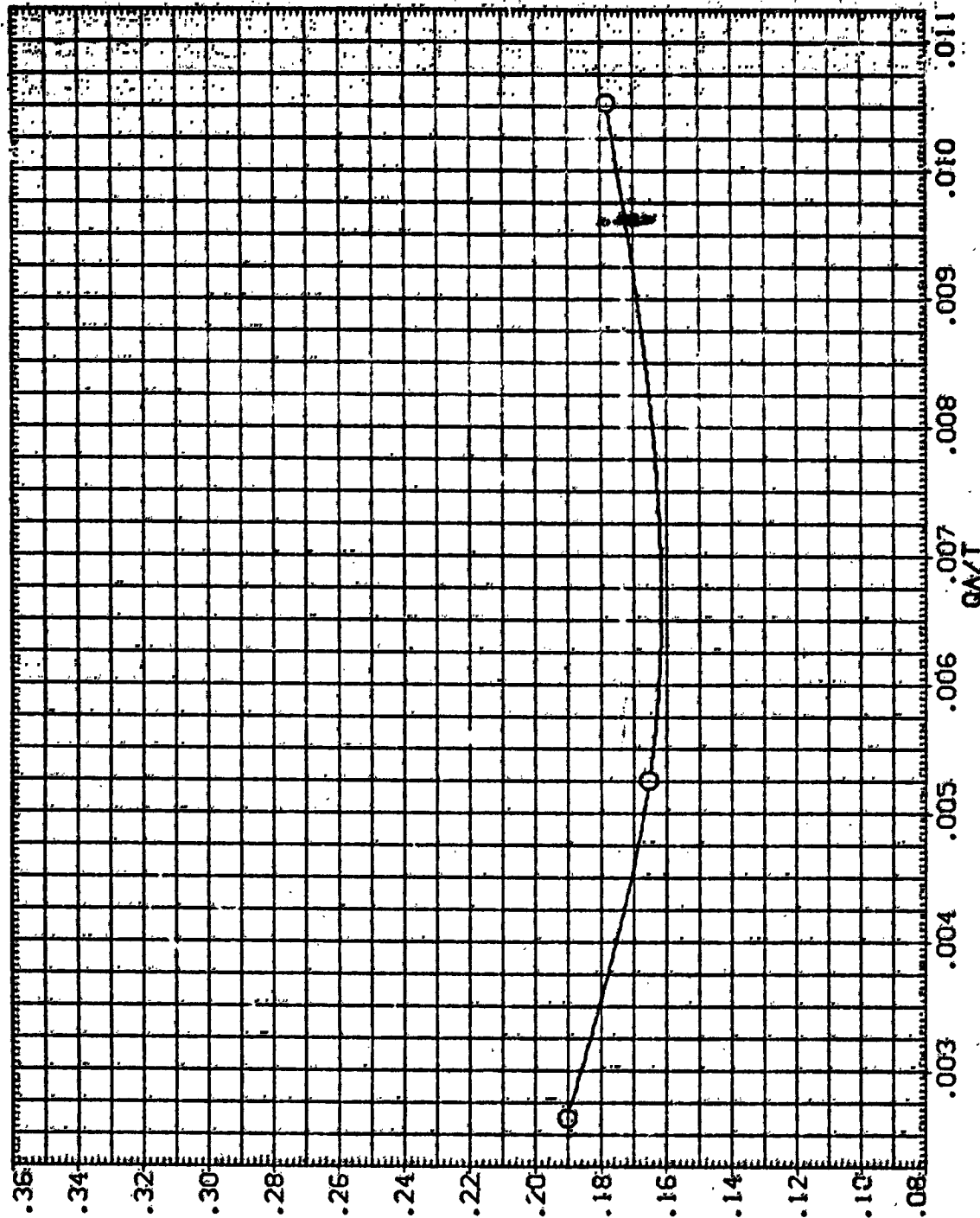
DATA SET SYMBOL (SJA003) ○

CONFIGURATION DESCRIPTION

01N79N78 LARC CFHT 118 (NA-22)

ELEVATION .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2650.0000 IN. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XRRP 1076.7000 IN. TO
 YRRP .0000 IN. TO
 ZRRP 375.0000 IN. TO
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - PITCH, N(RM)

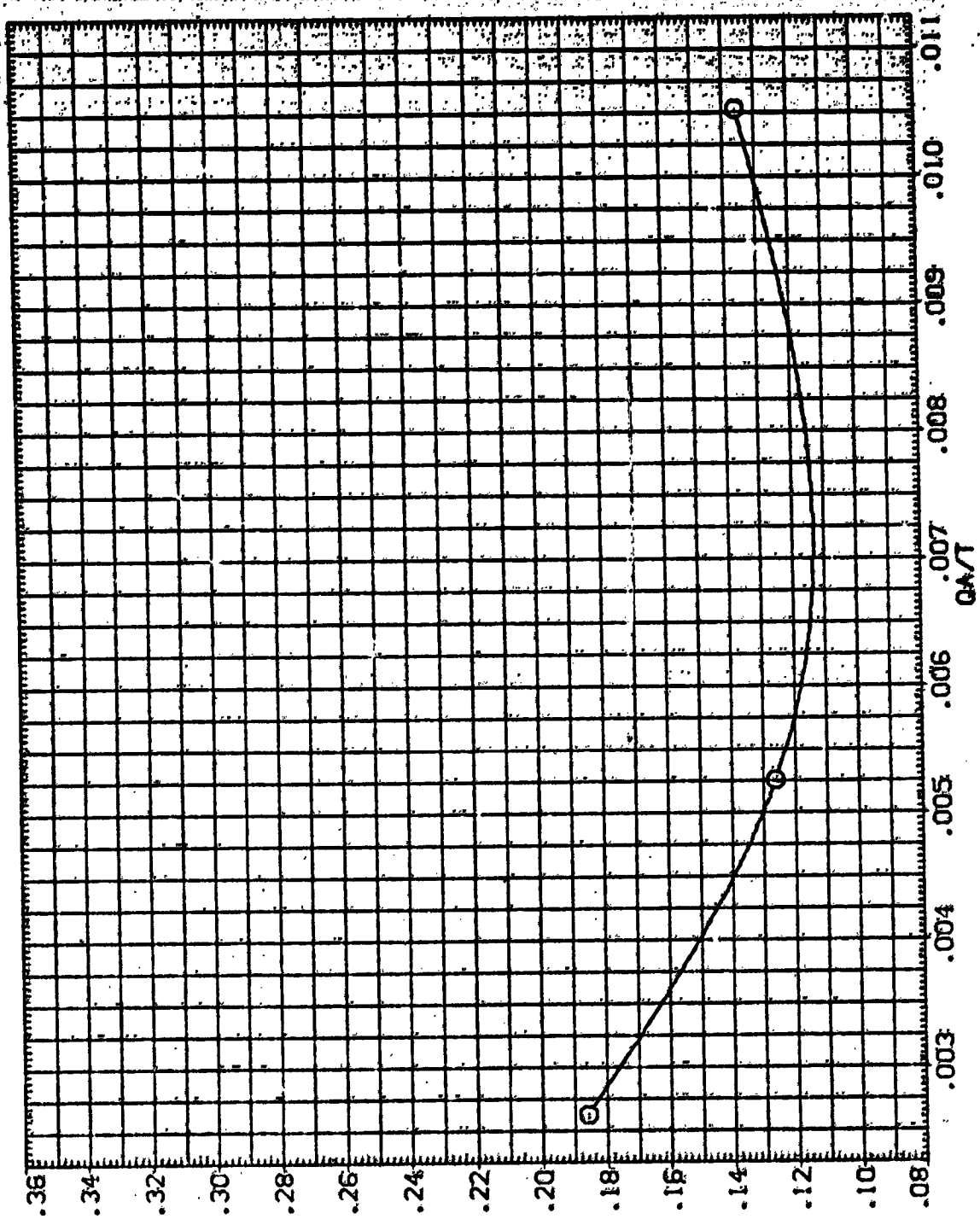
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

CCJALPHA = -4.00

DATA SET SYMBOL: 01N79N78 LARC CFHT 118 (MA-22)
 (5J1009)

ELEVON NO. JET BOFLAP BETA
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2650.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. 10
 YMRP 375.0000 IN. 70
 ZMRP 375.0000 IN. 20
 SCALE .0100



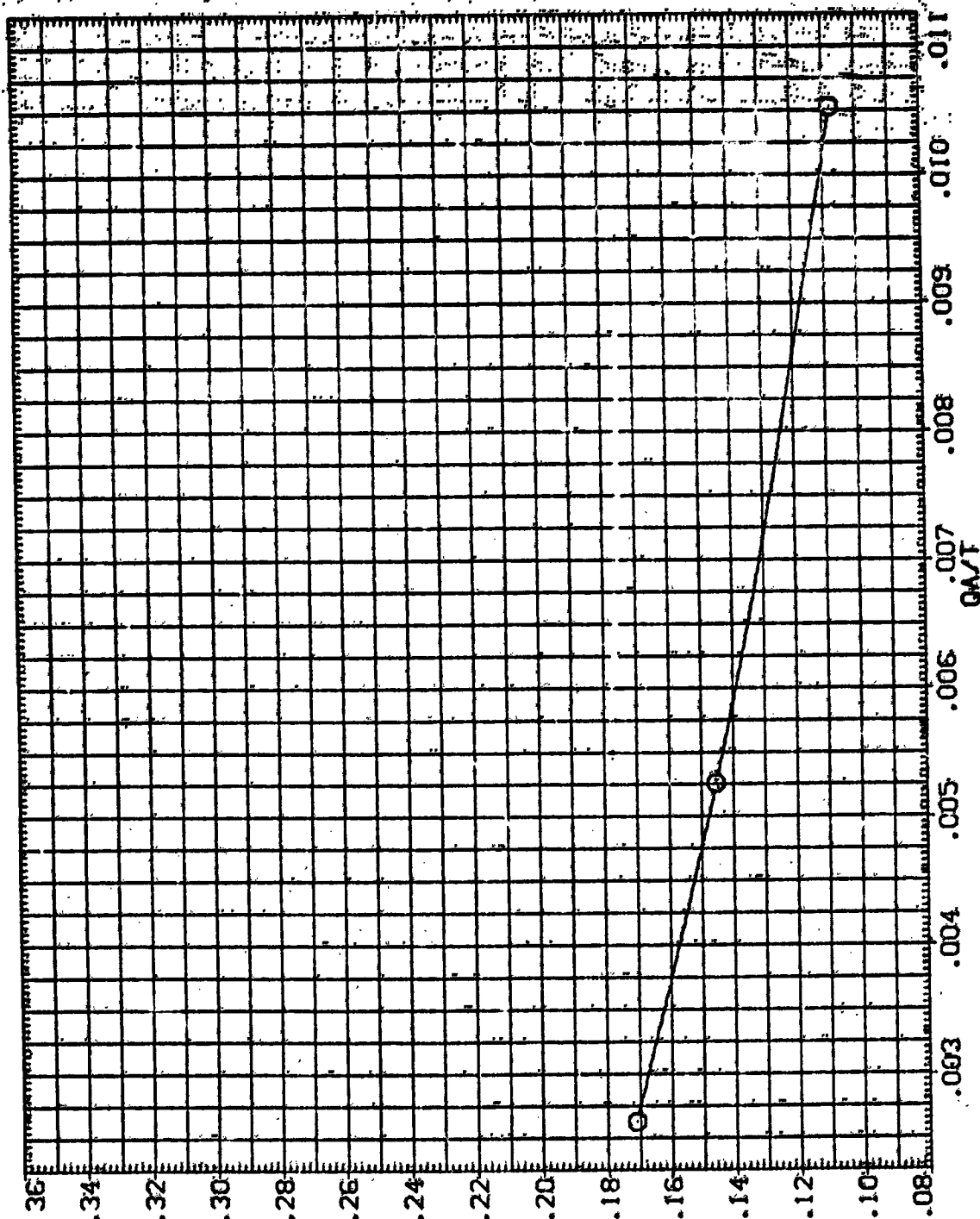
RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(Q)ALPHA = -2.00

DATA SET SYMBOL (SJA005) 0
 CONFIGURATION DESCRIPTION 0175N78 LARC CFM1 118 (NA-221)

ELEVON: .080 NO-JET BOFLAP BETA .000
 REFERENCE INFORMATION
 SREF 2690.0000 IN. FT.
 LREF 477.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1075.2000 IN. IN
 YREF 395.0000 IN. IN
 ZREF 395.0000 IN. IN
 SCALE .0100



RCS Jet Amplification Factor - Pitch (NRM)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(C)ALPHA = .00

DATA SET SYMBOL C 01N79N78 LARC CFWI 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
 .000 2.000 .080

REFERENCE INFORMATION
 SPREF 2630.0000 SQ. FT.
 LPREF 476.8000 INCHES
 BPREF 536.6800 INCHES
 XPREF 1076.7000 IN. TO
 YPREF .0000 IN. TO
 ZPREF 373.0000 IN. TO
 SCALE .0100

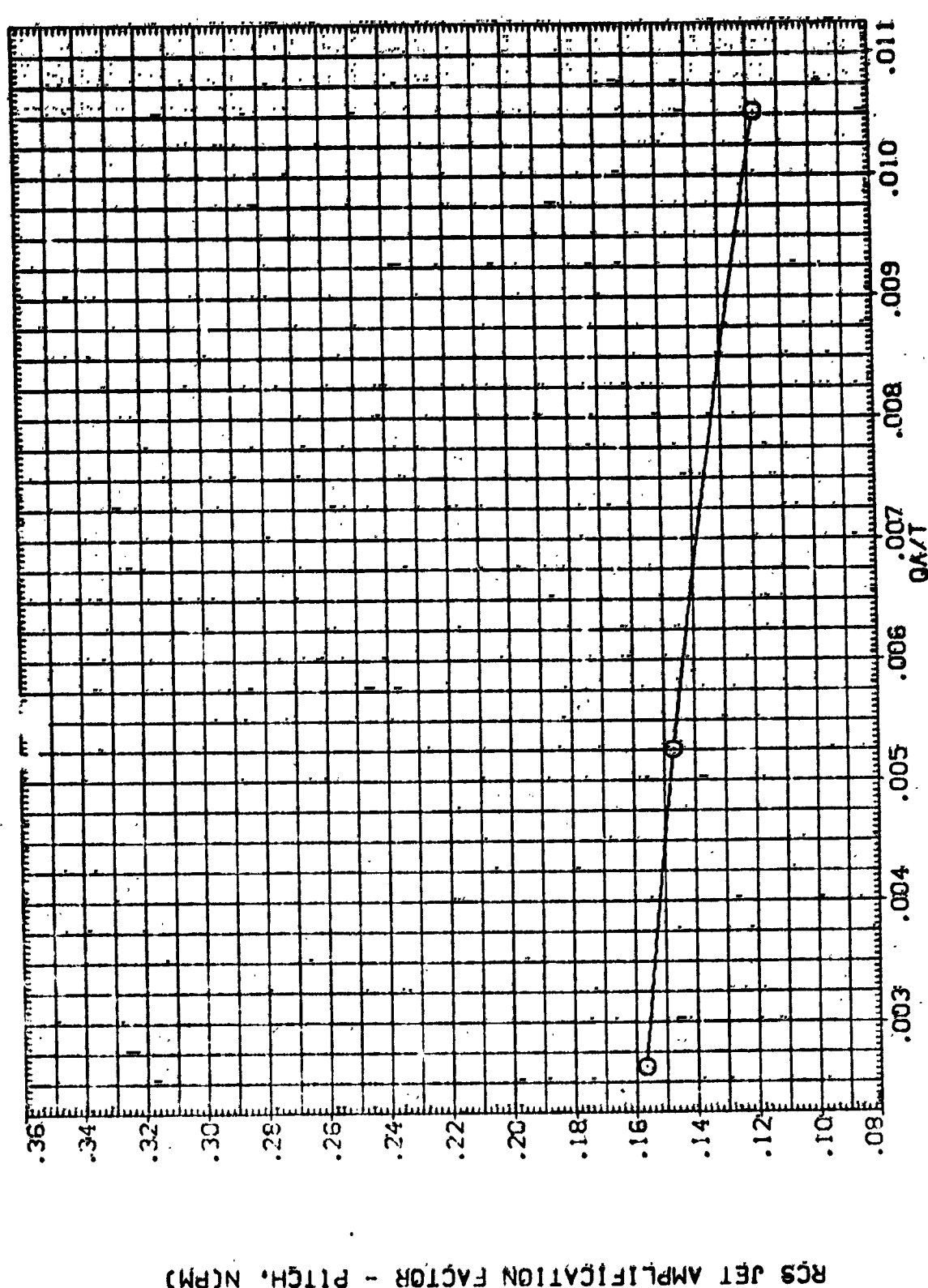


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(F) ALPHA = 2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA-009) O 01N79N78 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
.000 2.000 .000 .000

REFERENCE INFORMATION
SREF 2650.000 SO. FT.
LREF 474.8000 INCHES
BREF 36.6800 INCHES
X1000 1056.7000 IN. X0
Y1000 .0000 IN. Y0
Z1000 375.0000 IN. Z0
SCALE .0100

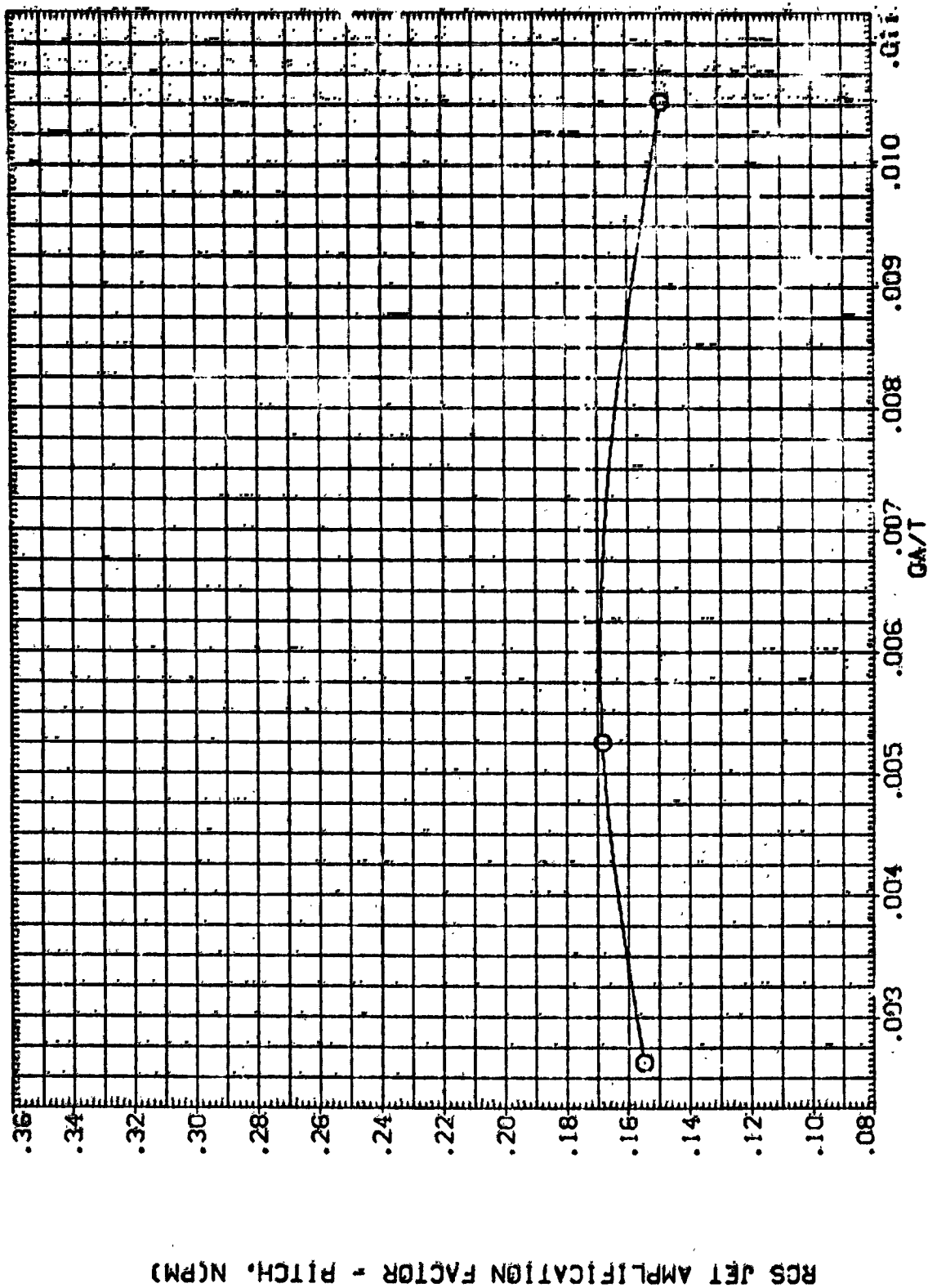


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

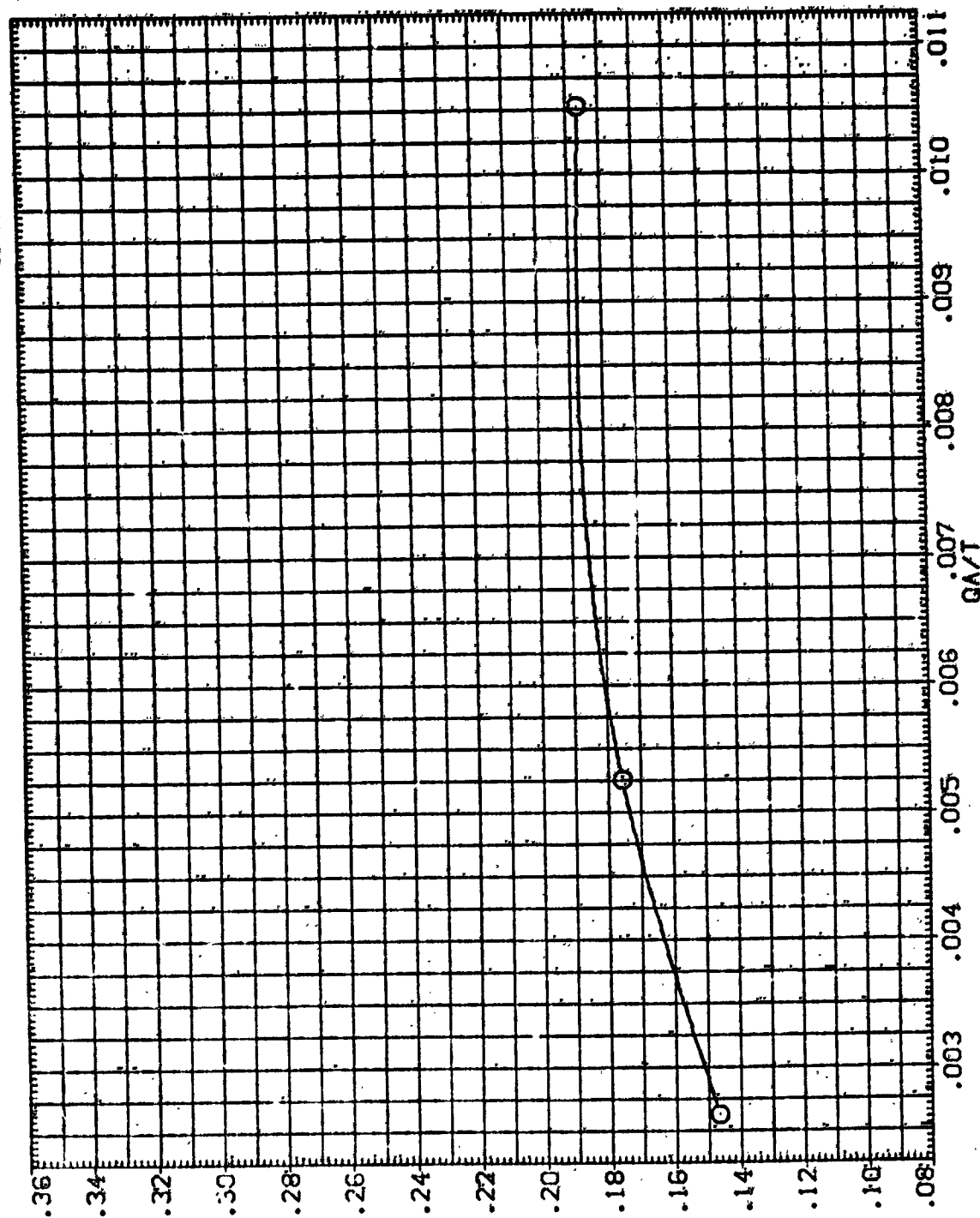
(G)ALPHA = 4.00

DATA SET SYMBOL (SIA003.)

CONFIGURATION DESCRIPTION
01N79N78 LARC CPMT 118 (MA-22)

ELEVON .000
NO. JET 2.000
BOFLAP .000
BETA .000

REFERENCE INFORMATION
REF 2690.0000 SO. FT.
LREF 474.8000 INCHES
BREF 935.5800 INCHES
XMRP 1076.2000 IN. NO
YMRP .0000 IN. NO
ZMRP 325.0800 IN. NO
SCALE .0100



RCS JET AMPLIFICATION FACTOR - PITCH, NRM)

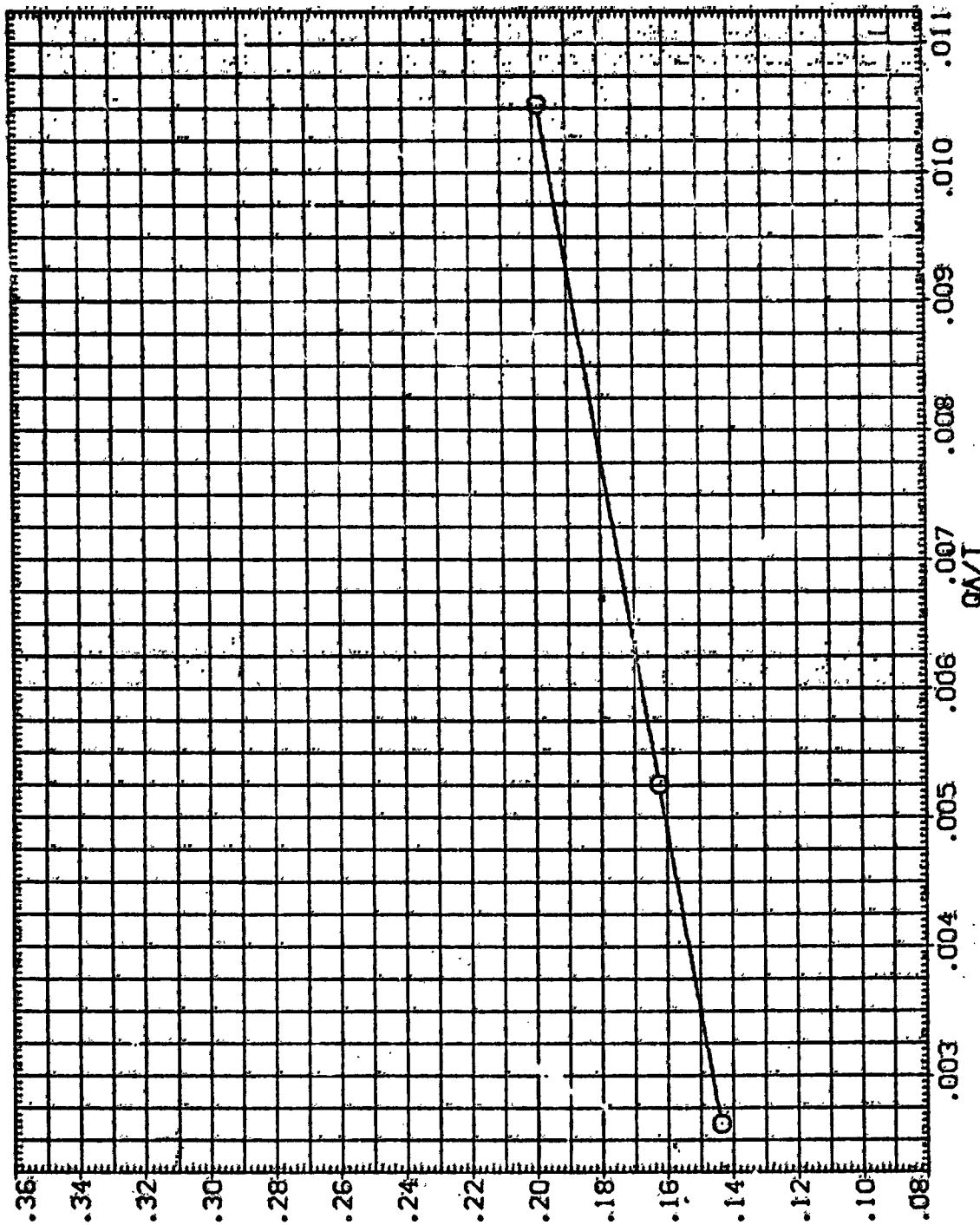
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(H)ALPHA = 8.00

DATA SET SYMBOL: Q1N79N78 LARC CFRT 110 (MA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XTRP 1026.2000 IN. X0
 YTRP .0000 IN. Y0
 ZTRP 375.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

C.I. ALPHA = 8.00

DATA SET SYMBOL: 01379N78 LARC CFHT 1:18 (MA-221)

ELEVON NO. JET 80FLAP BETA
 .004 2.000 .000
 REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. X
 YREF .0000 IN. Y
 ZREF 375.6000 IN. Z
 SCALE .0100

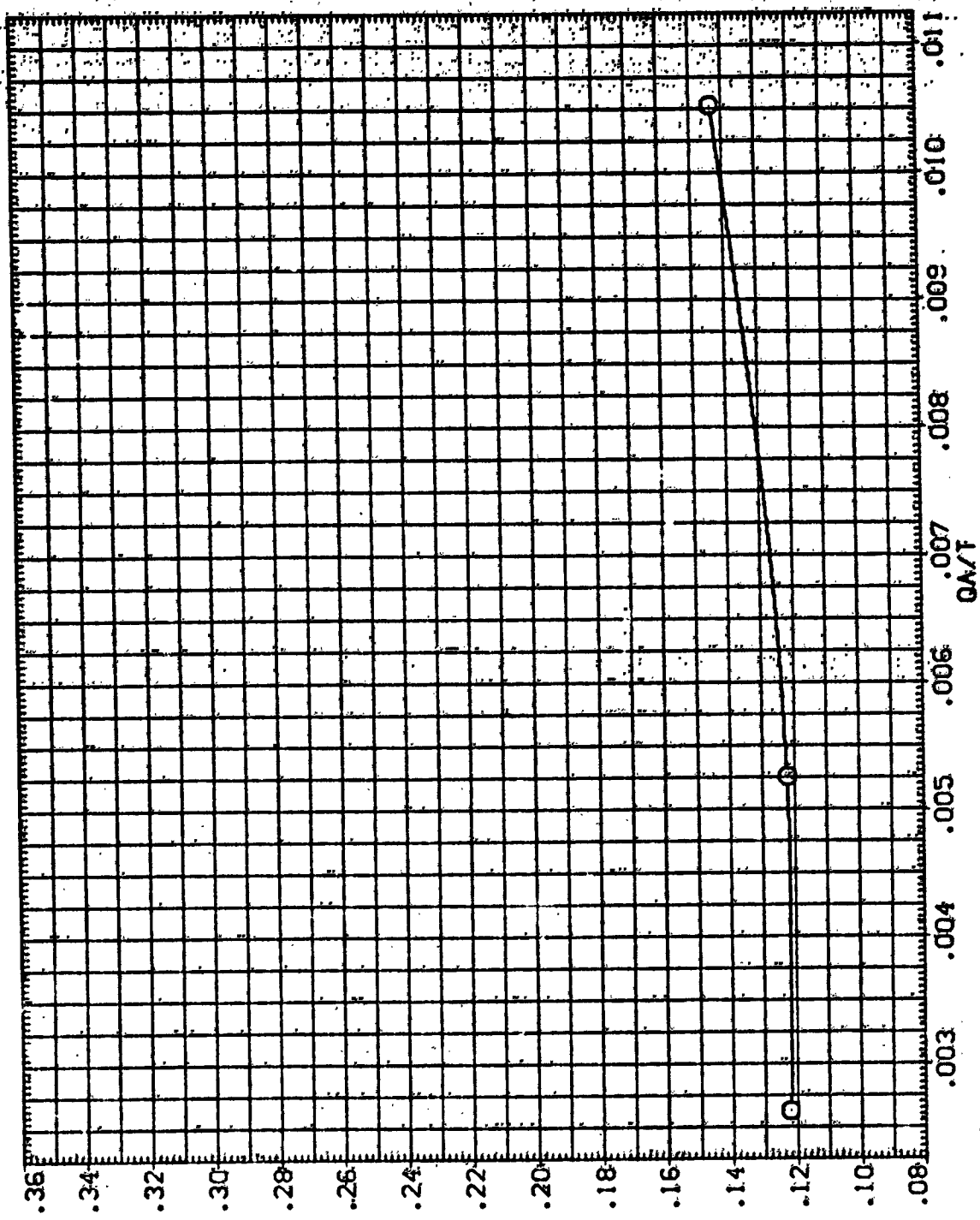


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(J)ALPHA = 10.00

DATA SET SYMBOL: Q179N78 LARC CFMR 118 (NA-22)

ELEVON NO. JET: 2.000
BDFLAP: .000
BETA: .000

REFERENCE INFORMATION:
SREF: 2690.0000 50 FT.
LREF: 474.8000 INCHES
BREF: 936.8800 INCHES
XREF: 1076.7000 IN. 10
YREF: .0000 IN. 10
ZREF: 375.0000 IN. 20
SCALE: .0100

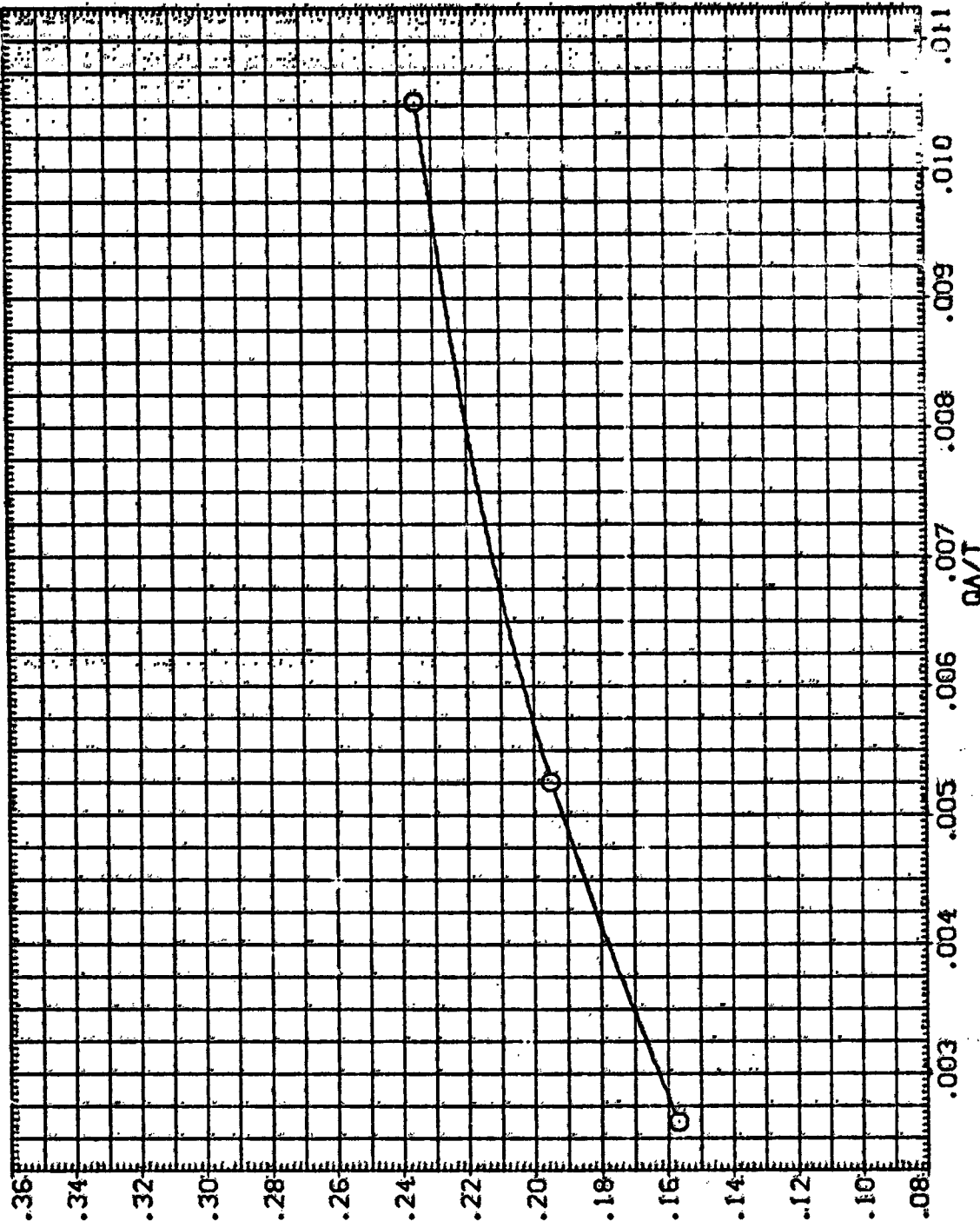


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(K)ALPHA = 15.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA005) ○ 61N79N78 LARC CFMT 118 (MR-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION

.006	2.000	.000	.003	SREF	2690.0000	SO. FT.
				LREF	474.8000	INCHES
				BREF	936.6800	INCHES
				XMRP	1076.7000	IN. X0
				YMRP	.0000	IN. Y0
				ZMRP	375.0000	IN. Z0
				SCALE	.0100	

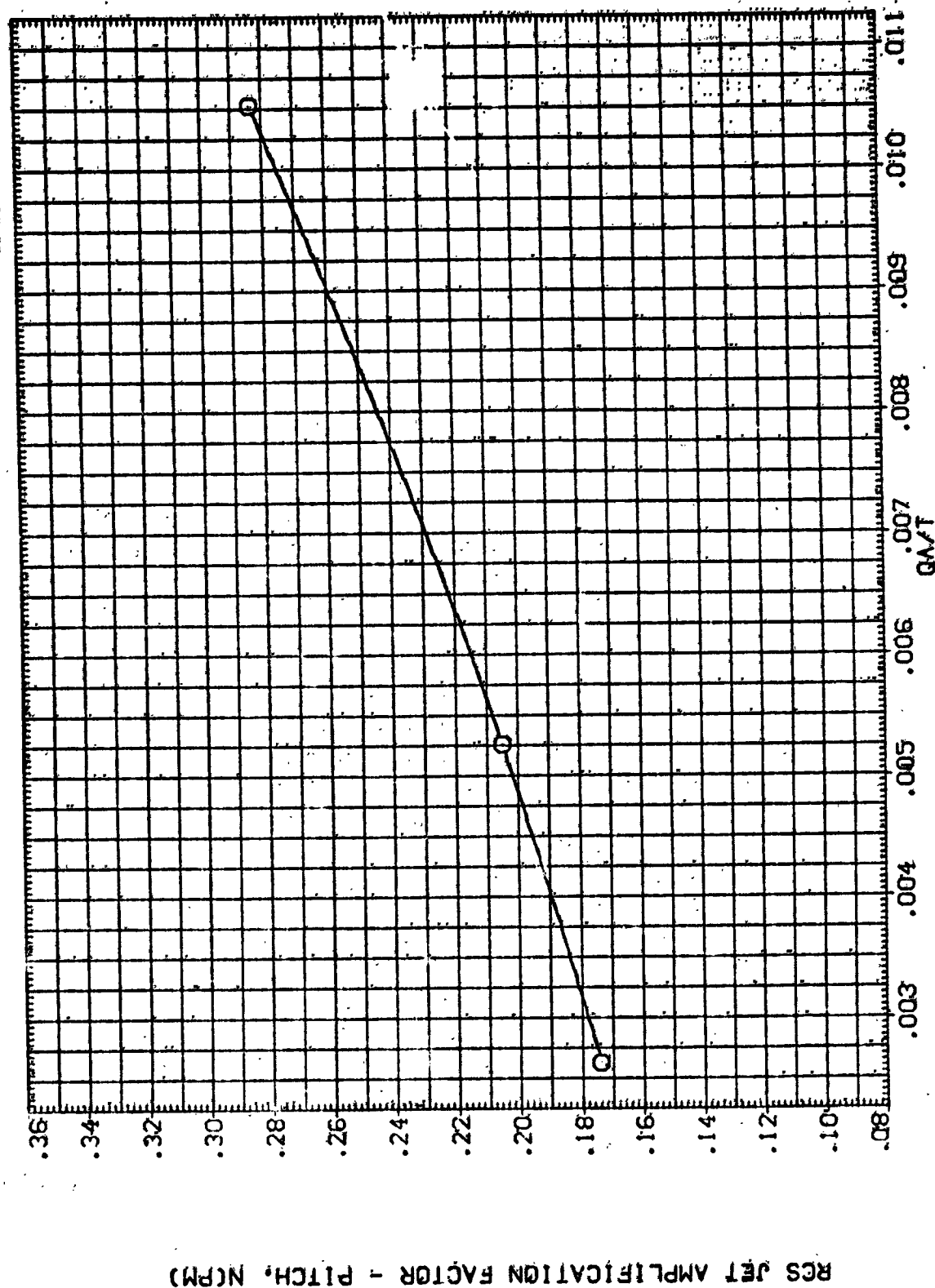


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(L)ALPHA = 20.00

DATA SET SYMBOL: 01N79N78
 CONFIGURATION DESCRIPTION: LAPC CFHT 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BOFLAP: .000
 BE: .000

REFERENCE INFORMATION:
 SPREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BRREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0800 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

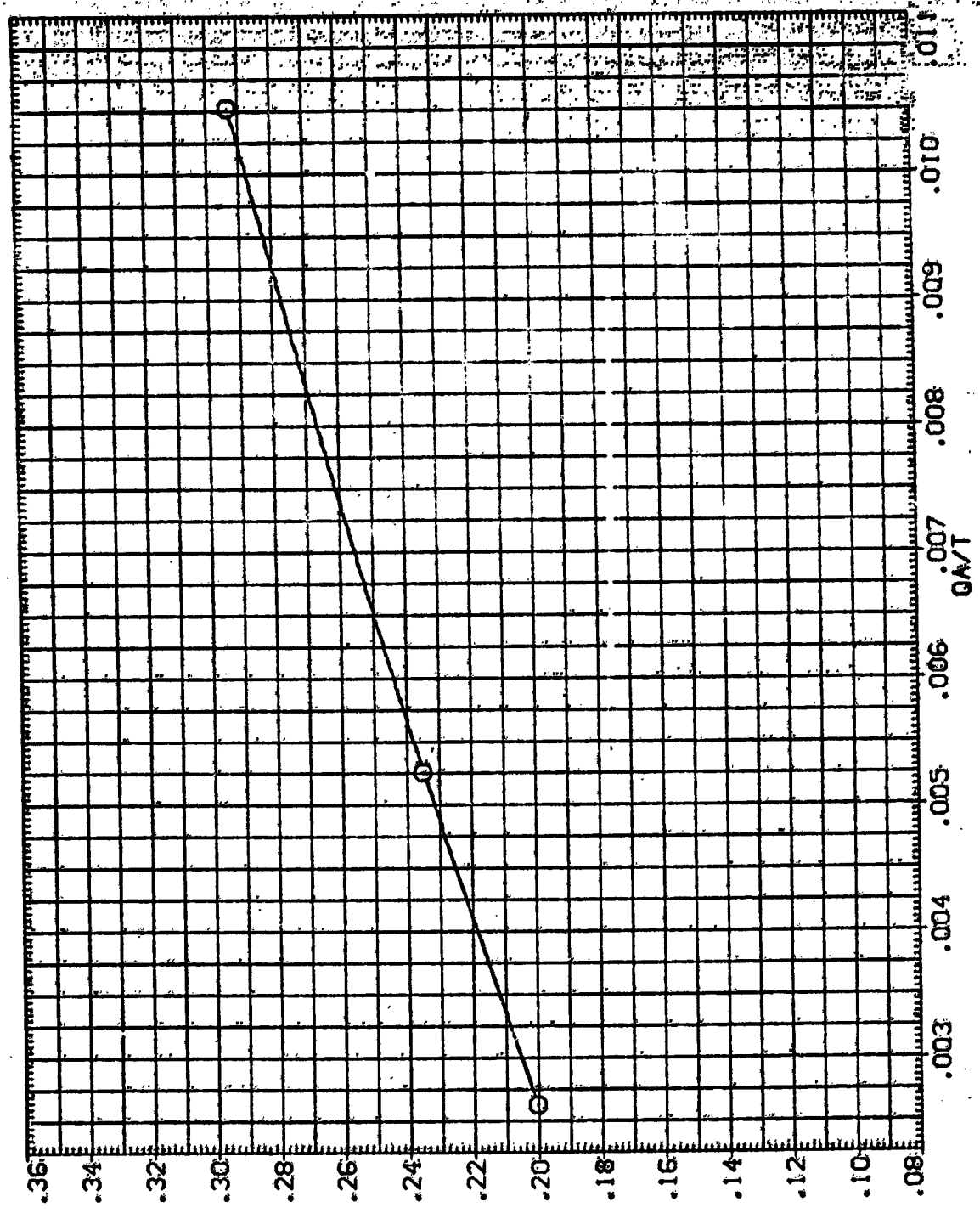


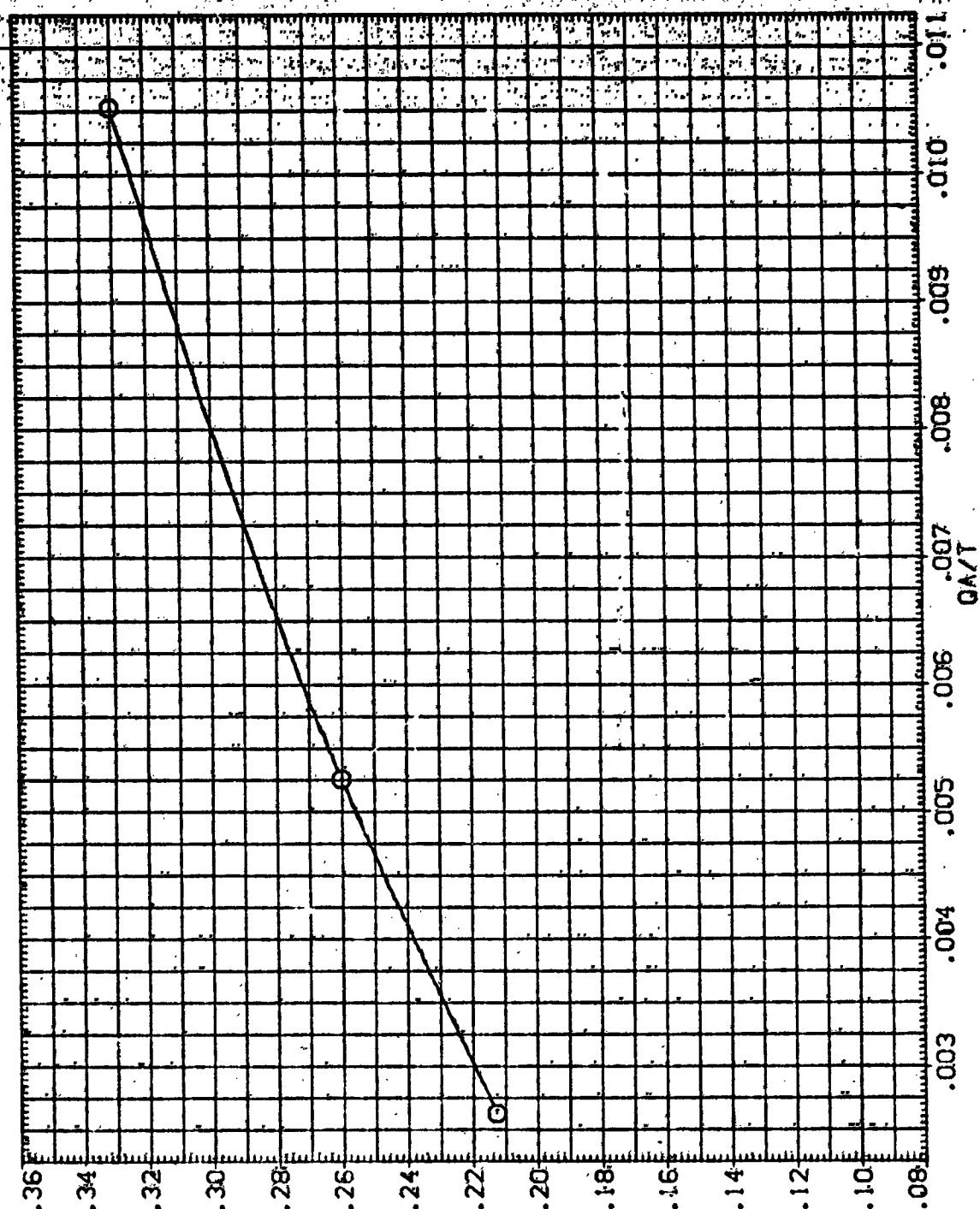
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(M)ALPHA = 25.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJM009) Q C1N79N78 LARC CFME 118 (PA-22)

ELEVON NO. JEI BOFLAP BETA
.000 2.000 .000 .080

REFERENCE INFORMATION
SREF 2590.0000 50. FT
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100



RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

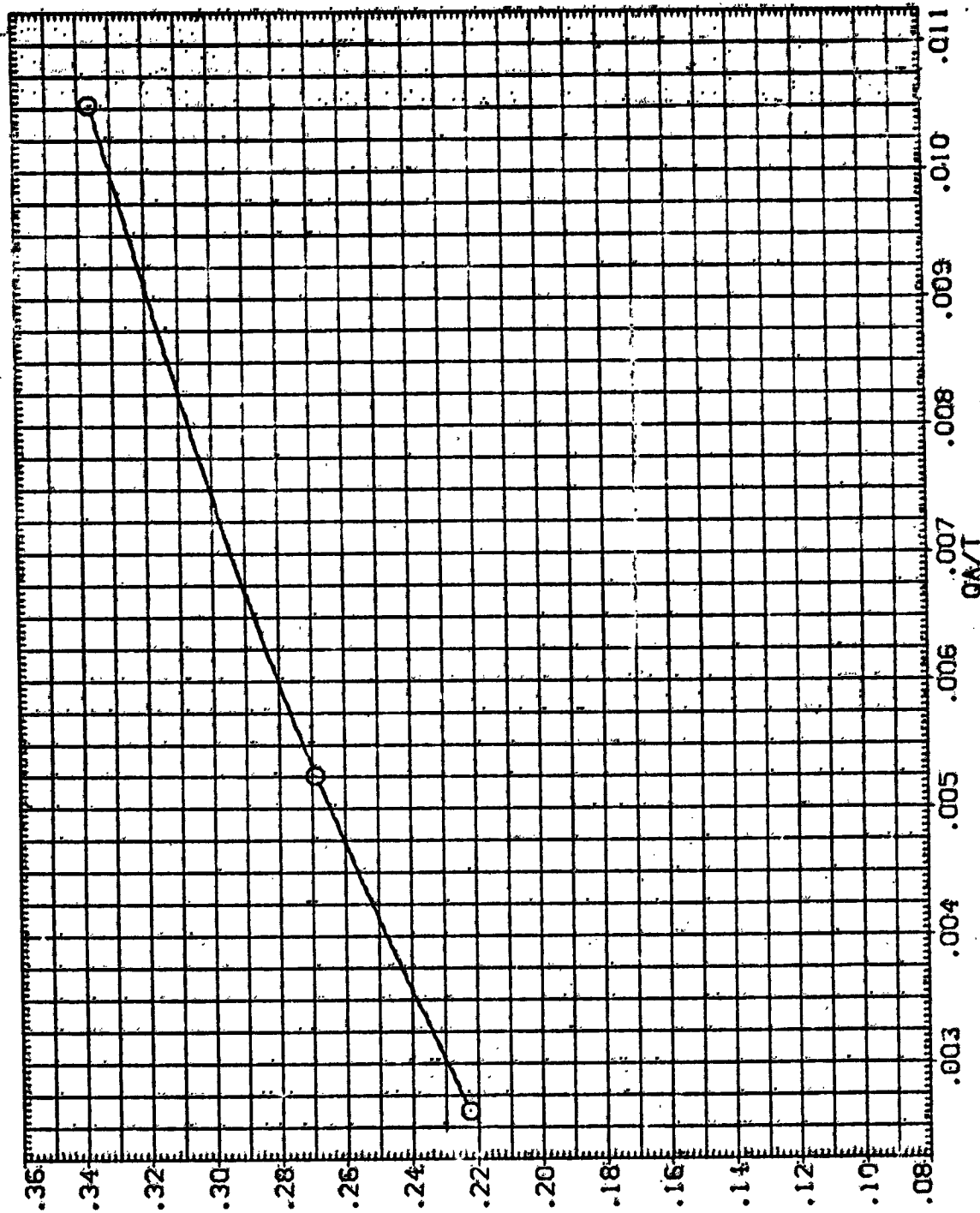
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(N)ALPHA = 30.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJAC03) O QUN79N78 LARC CFHT 118 (MA-22)

ELEVON NO. JET 80FLAP 8EVA
.000 .000 .000

REFERENCE INFORMATION
SREF 2830.0000 SO. FT.
LREF 474.8000 INCHES
BREF 936.6000 INCHES
XMRP 1076.7000 IN. X0
YMRP .9000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100



RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

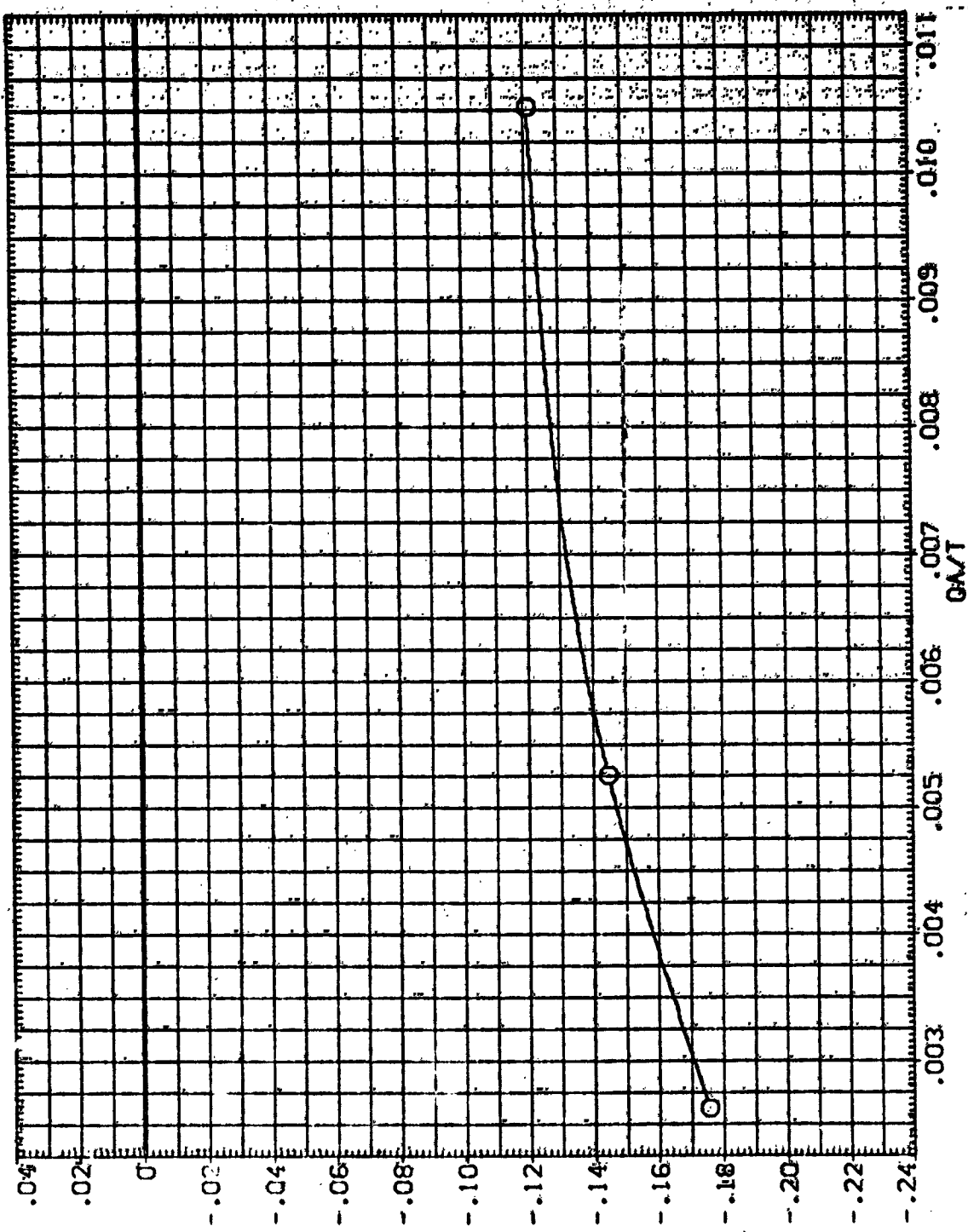
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(CO)ALPHA = 35.00

DATA SET SYMBOL: 01N79N78
 CONFIGURATION DESCRIPTION: LARC CFHT 118 (RA-221)

ELEVON NO.: 008
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SQ. FT.
 LREF: 474.8000 INCHES
 BREF: 936.5800 INCHES
 XMRP: 1076.7000 IN. NO
 YMRP: .0000 IN. YD
 ZMRP: 375.0000 IN. ZD
 SCALE: .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, (NCF)

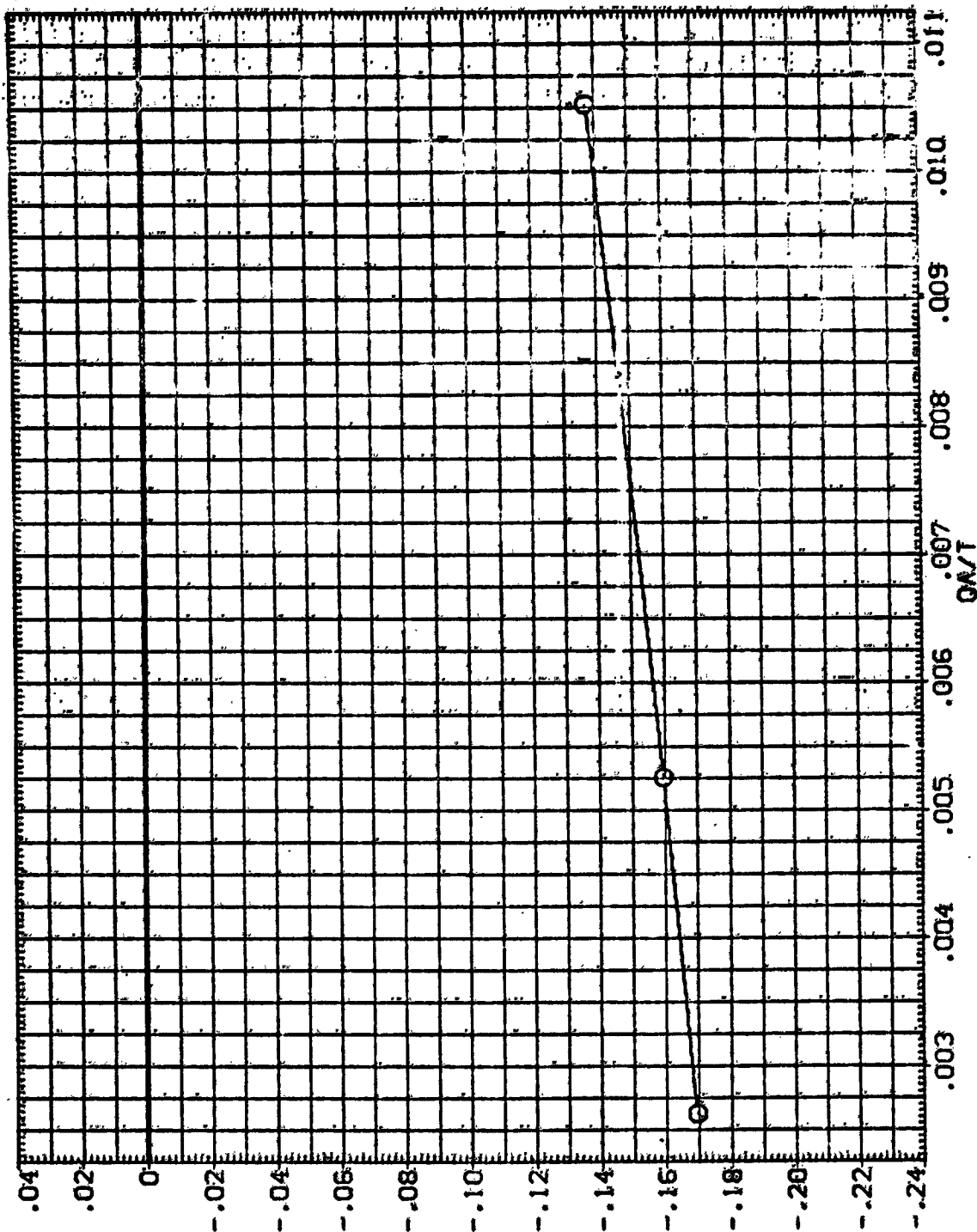
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(A) ALPHA = -8.00

DATA SET SYMBOL: 01N79N78 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
.000 2.000 .000 .000

REFERENCE INFORMATION
SREF 2690.0000 50 FT
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XREF 1076.7000 IN. X0
YREF .0000 IN. Y0
ZREF 375.0000 IN. Z0
SCALE .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, N(AF)

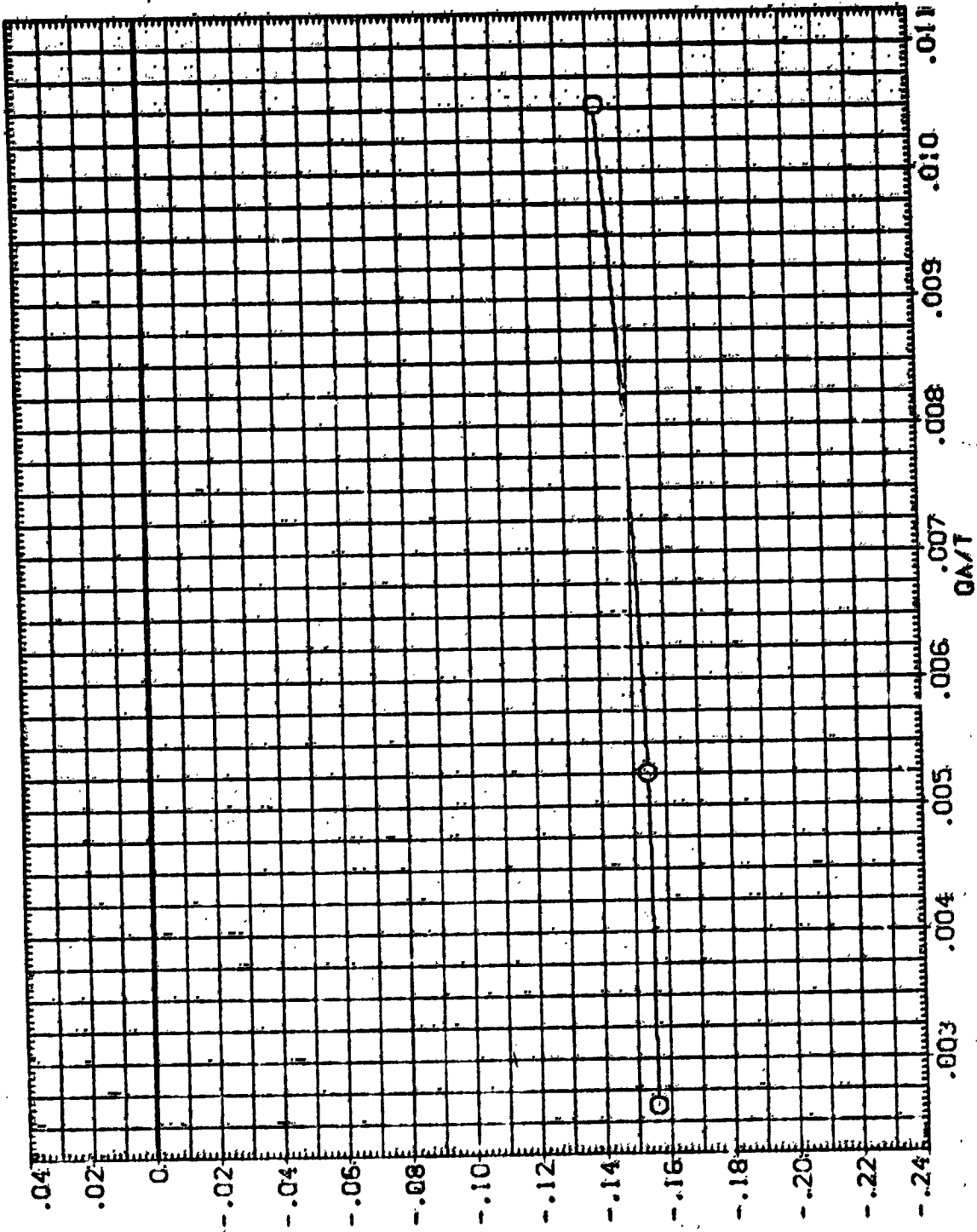
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(B) ALPHA = -6.00

DATA SET SYMBOL: (SJA009) Q. 01N79N78 LARC CFHT 118 (NA-221)

ELEVON: .000 NO. JET: 2.000 BOFLAP: .000 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 INCHES
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0030 IN. Y0
 ZMRP: .0000 IN. Z0
 SCALE: .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, N(AF)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(C) ALPHA = -4.00

DATA SET SYMBOL (SJA009) ☐ QIN73N78 LARC CFM1 118 (RA-22)

ELEVON NO. JET BDFLAP BETA
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2630.0000 SD.FT.
 LREF 476.8000 INCHES
 BREF 955.6800 INCHES
 XREF 1046.7000 IN. X0
 YREF .0000 IN. Y0
 ZREF 375.0000 IN. Z0
 SCALE .0100

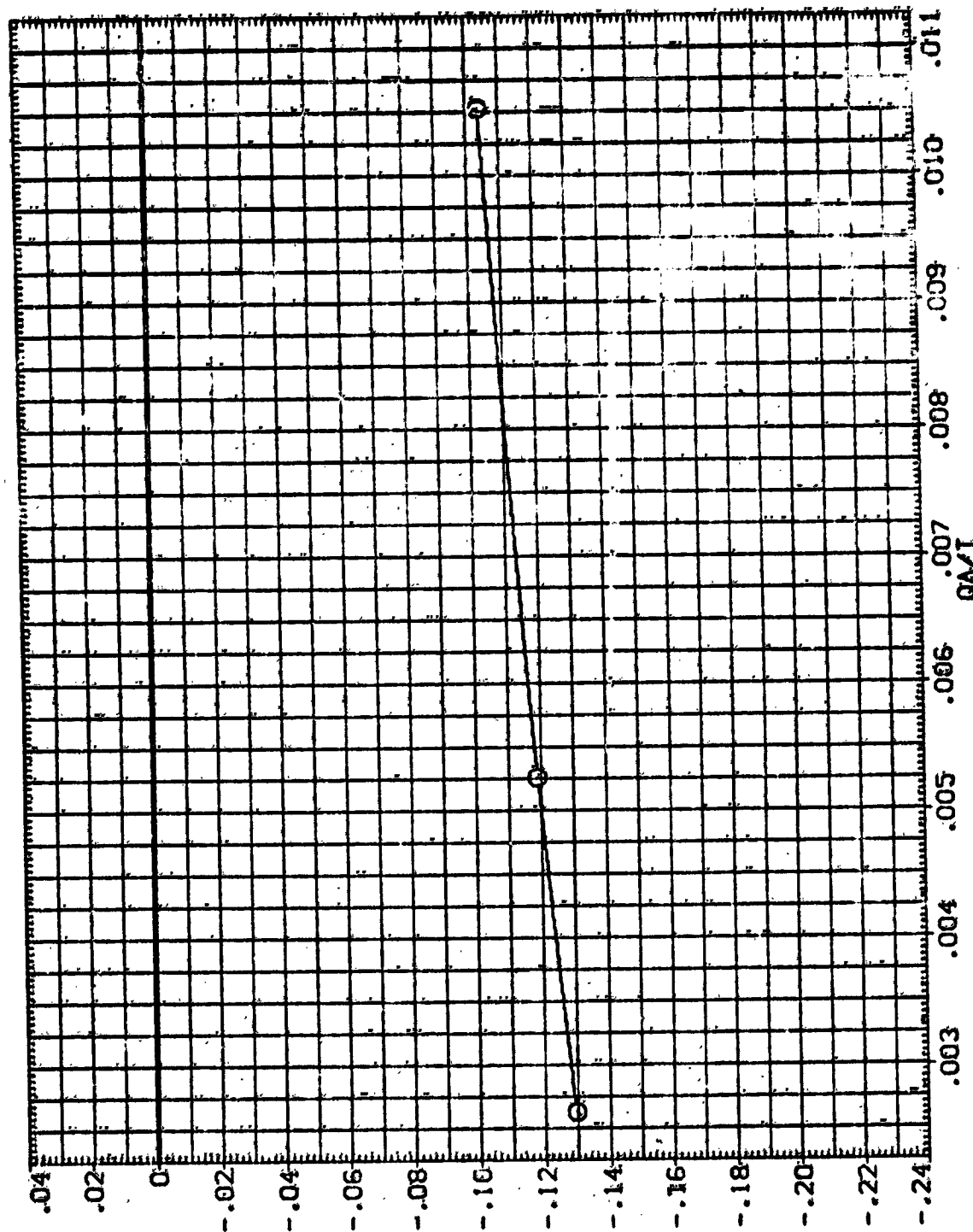


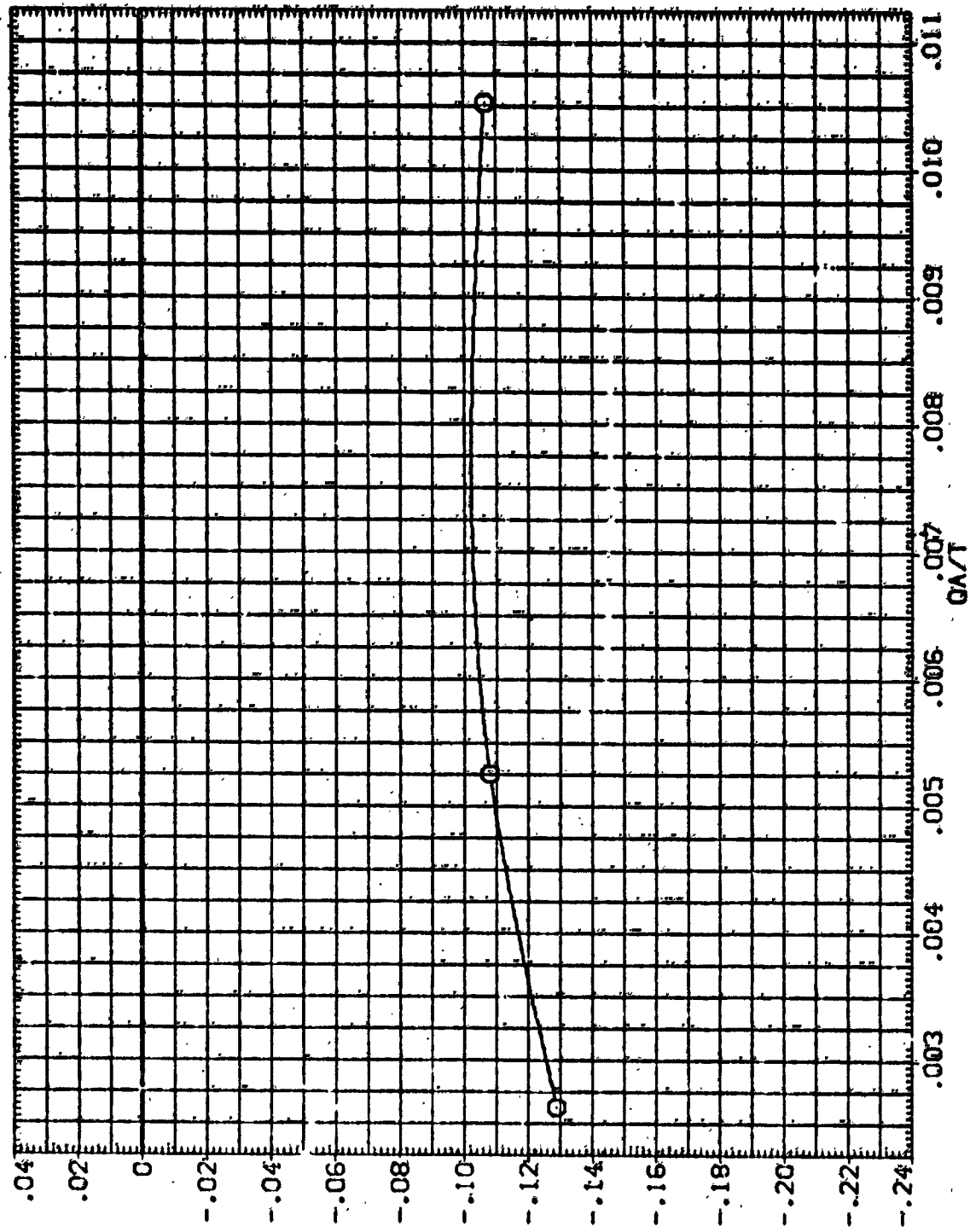
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(D)ALPHA = -2.00

DATA SET SYMBOL: O
 (SJA0001) 01N29N78 LARC CPMT 118 (NA-22)

ELEVON NO. JET 80FLAP BETA
 .006 2.000 .080 .000

REFERENCE INFORMATION
 SREF 2650.0000 SO.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 YPRP 1076.7000 IN. NO
 ZPRP 395.0000 IN. NO
 SCALE .0180



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, (NAP)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(CEALPHA = .00

DATA SET SYMBOL: 01N79N78 LARC CFMT 118 (NA-222)

ELEVON NO. JET 80FLAP BETA .000 .000 .000

REFERENCE INFORMATION
 SREF 2690.000 50.00
 LREF 474.8000 INCHES
 BREF 936.6500 INCHES
 XREF 1078.7000 IN. X0
 YREF .0000 IN. Y0
 ZREF 325.0000 IN. Z0
 SCALE .0100

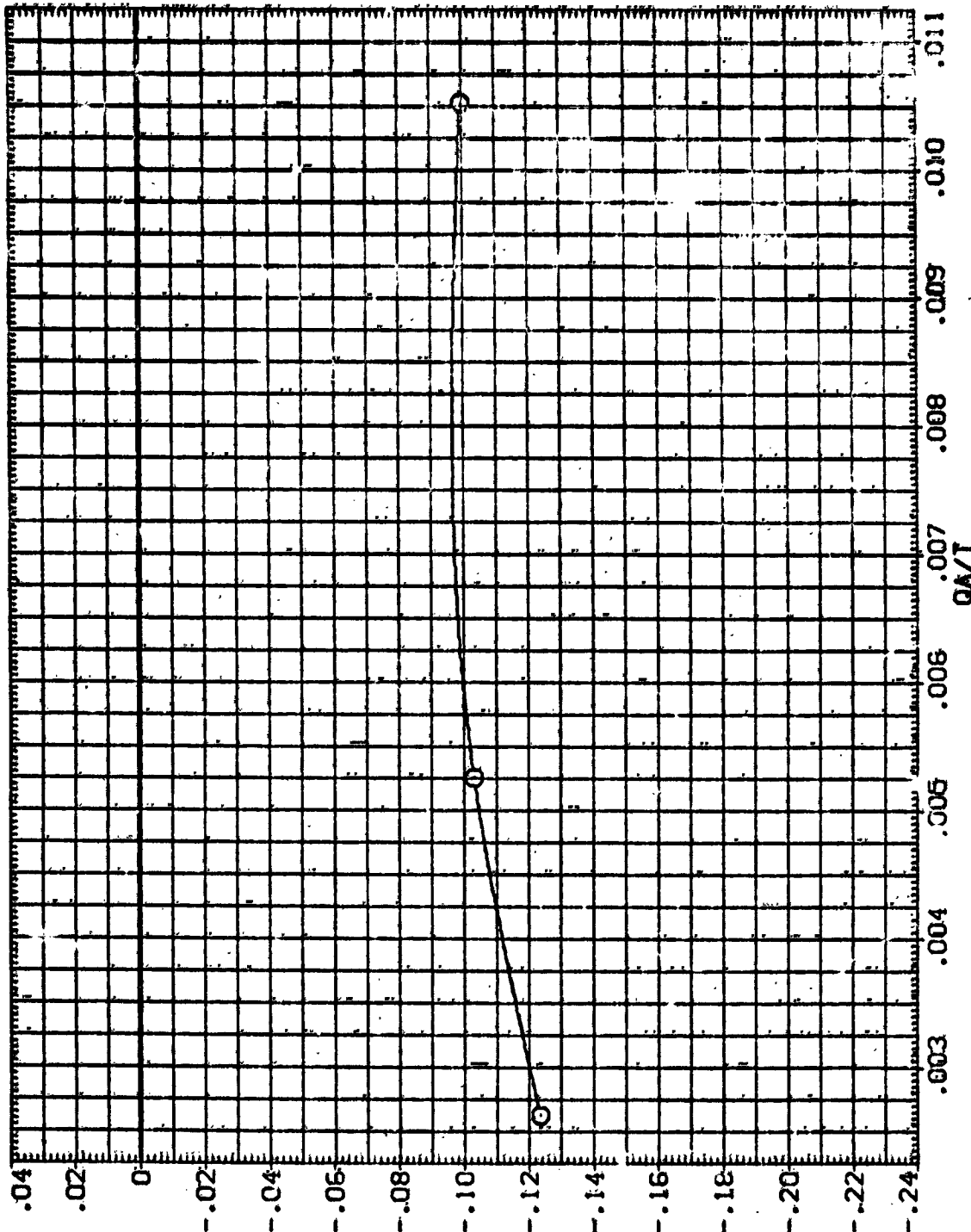


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(F)ALPHA = 2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA009) ○ 01N79N78 LARC CFHT 118 (PA-22)

ELEVON NO. JET BOFLAP BETA
 .080 2.000 .000 .008

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.9000 INCHES
 BREF 936.6800 INCHES
 XRRP 1076.7000 IN. X0
 YRRP .0000 IN. Y0
 ZRRP 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, (NAF)

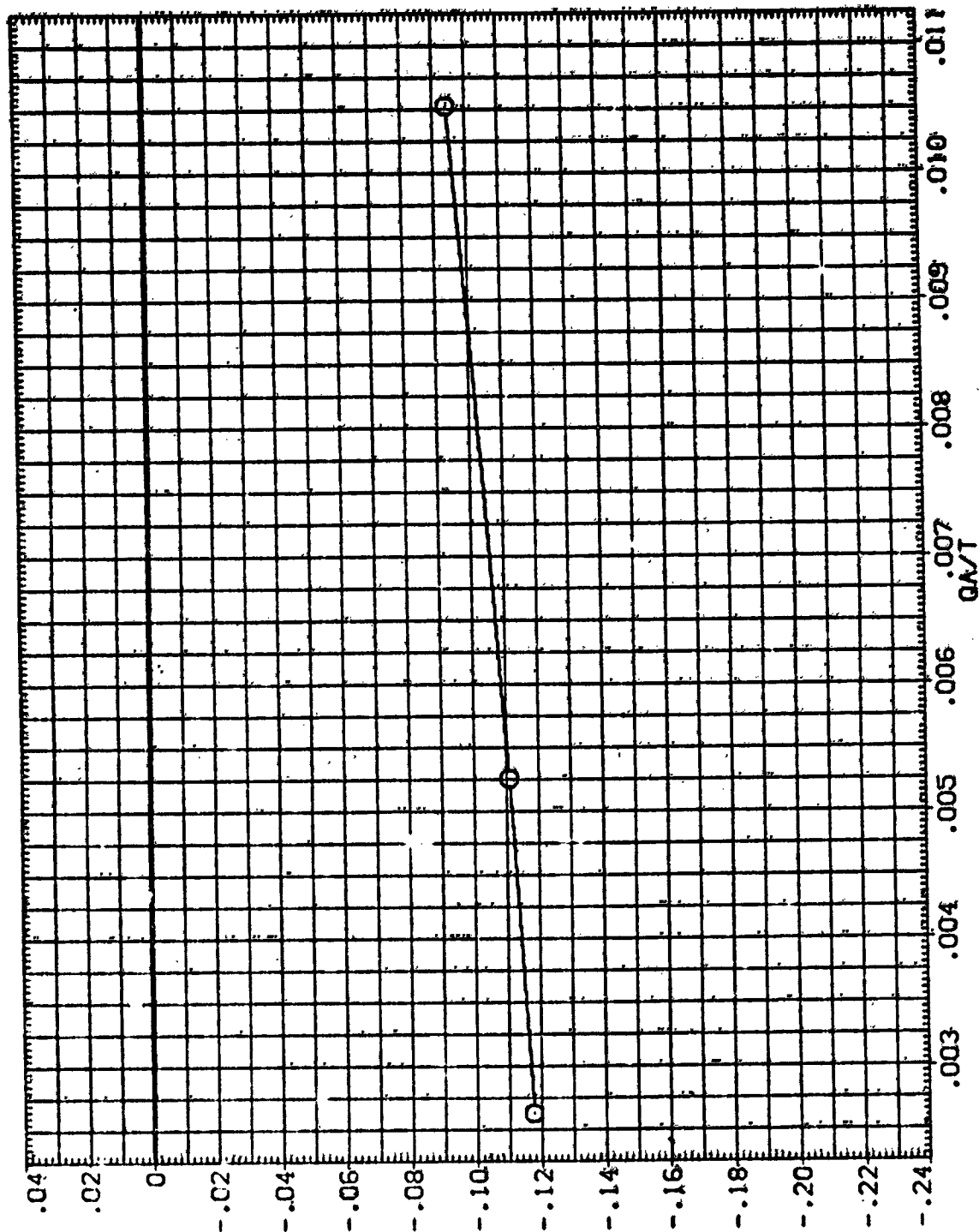


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(GIALPHA = 4.00

DATA SET SYMBOL: 0179N78 LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA

REFERENCE INFORMATION:
 SREF 2690.0000 SQ. FT.
 LREF 474.8600 INCHES
 BREF 996.6800 INCHES
 XMRP 1076.7000 IN. NO
 YMRP 0000 IN. NO
 ZMRP 375.0000 IN. NO
 SCALE 0.0100

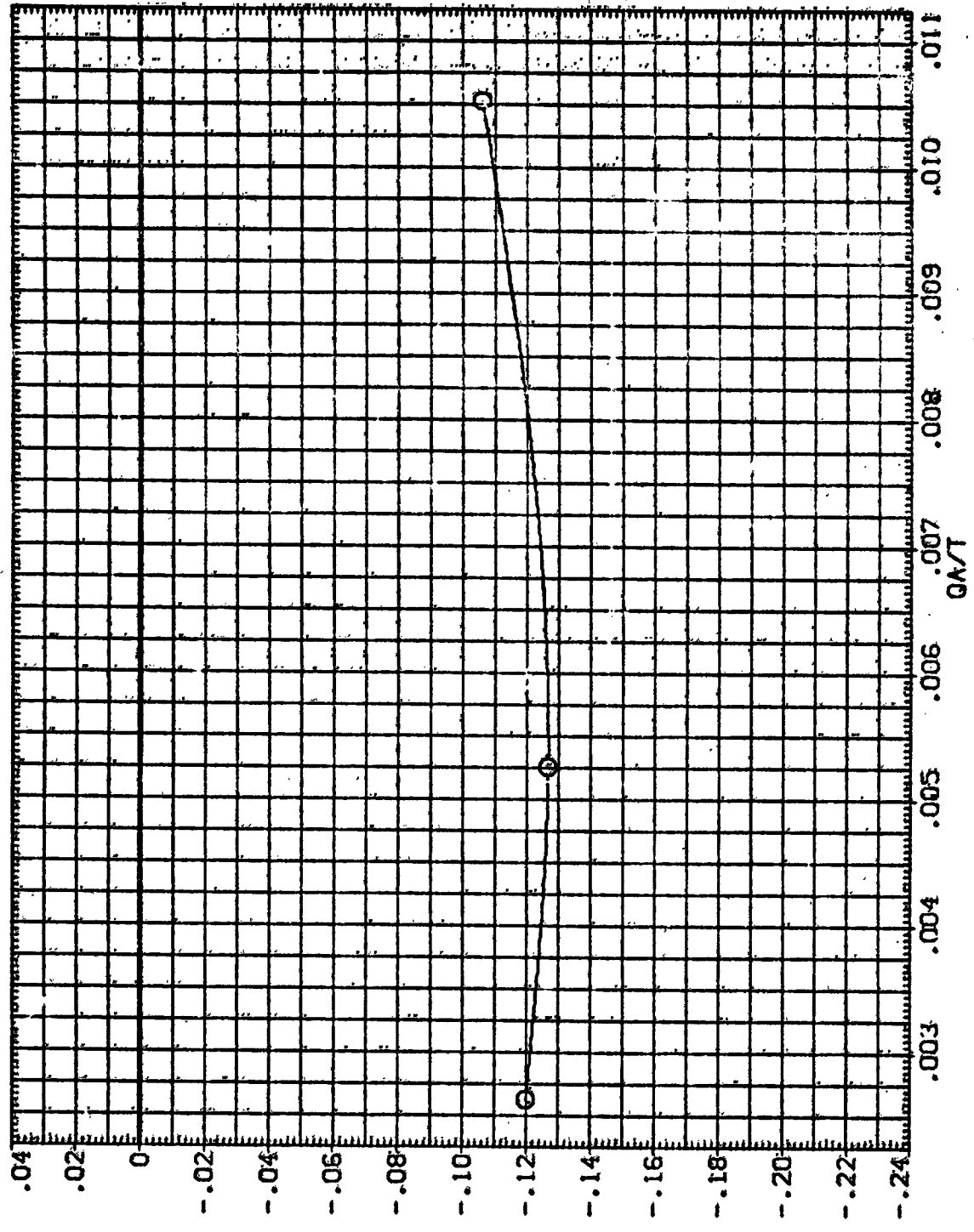


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(H)ALPHA = 6.00

DATA SET SYMBOL: (SJA003) \odot CONFIGURATION: 61N79N78 LARC CFHT 118 (HA-22)

ELEVON: .000 NO. JET: 2.000 BOFLAP: .000 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 INCHES
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XREF: 1076.7800 INCHES
 YREF: 375.0800 INCHES
 ZREF: 375.0800 INCHES
 SCALE: .0100

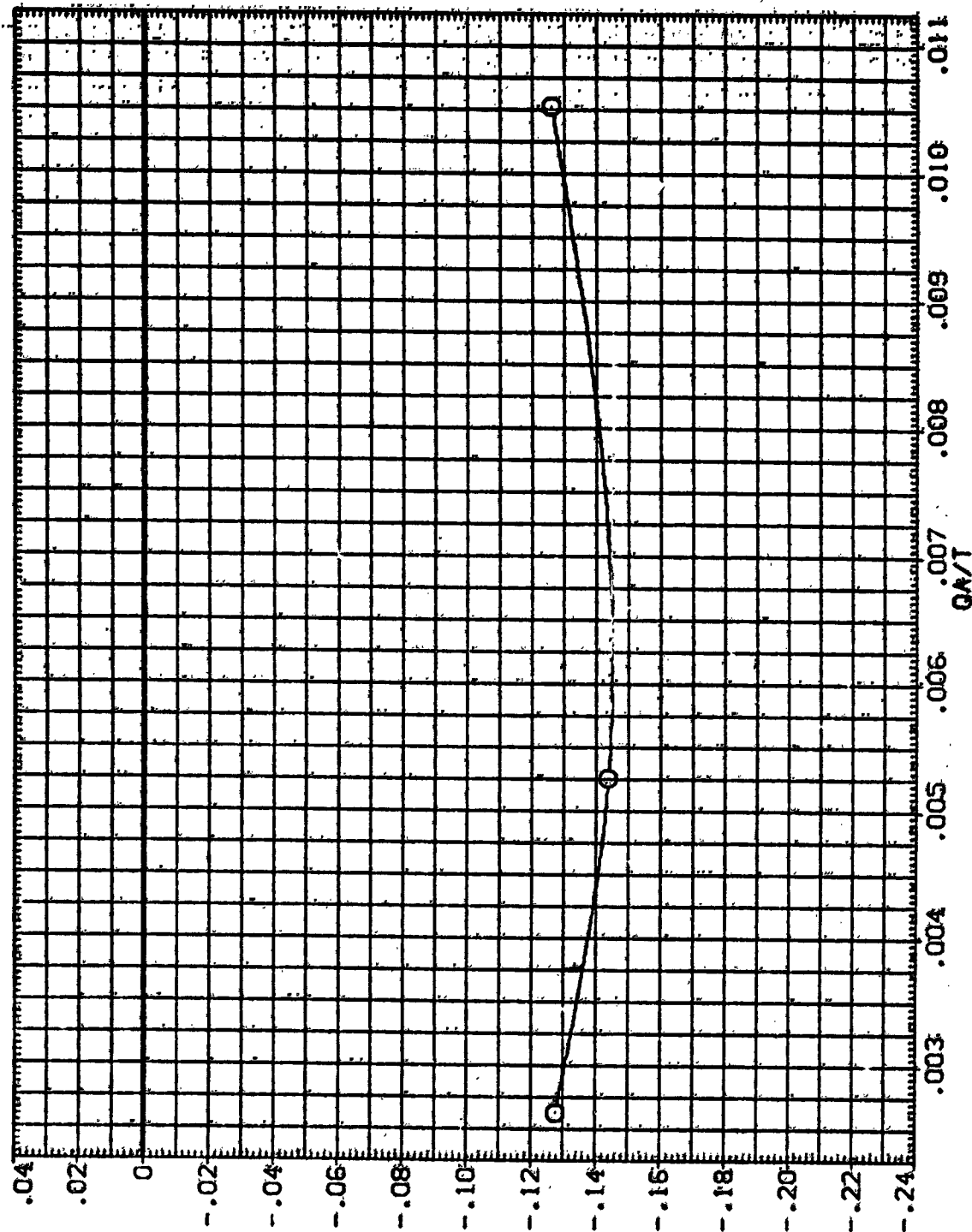


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(1) $\alpha_{PHA} = 8.00$

DATA SET SYMBOL: 01N79N78 LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
.000 2.000 .000

REFERENCE INFORMATION
SREF 2690.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.6000 IN. Z0
SCALE .0100

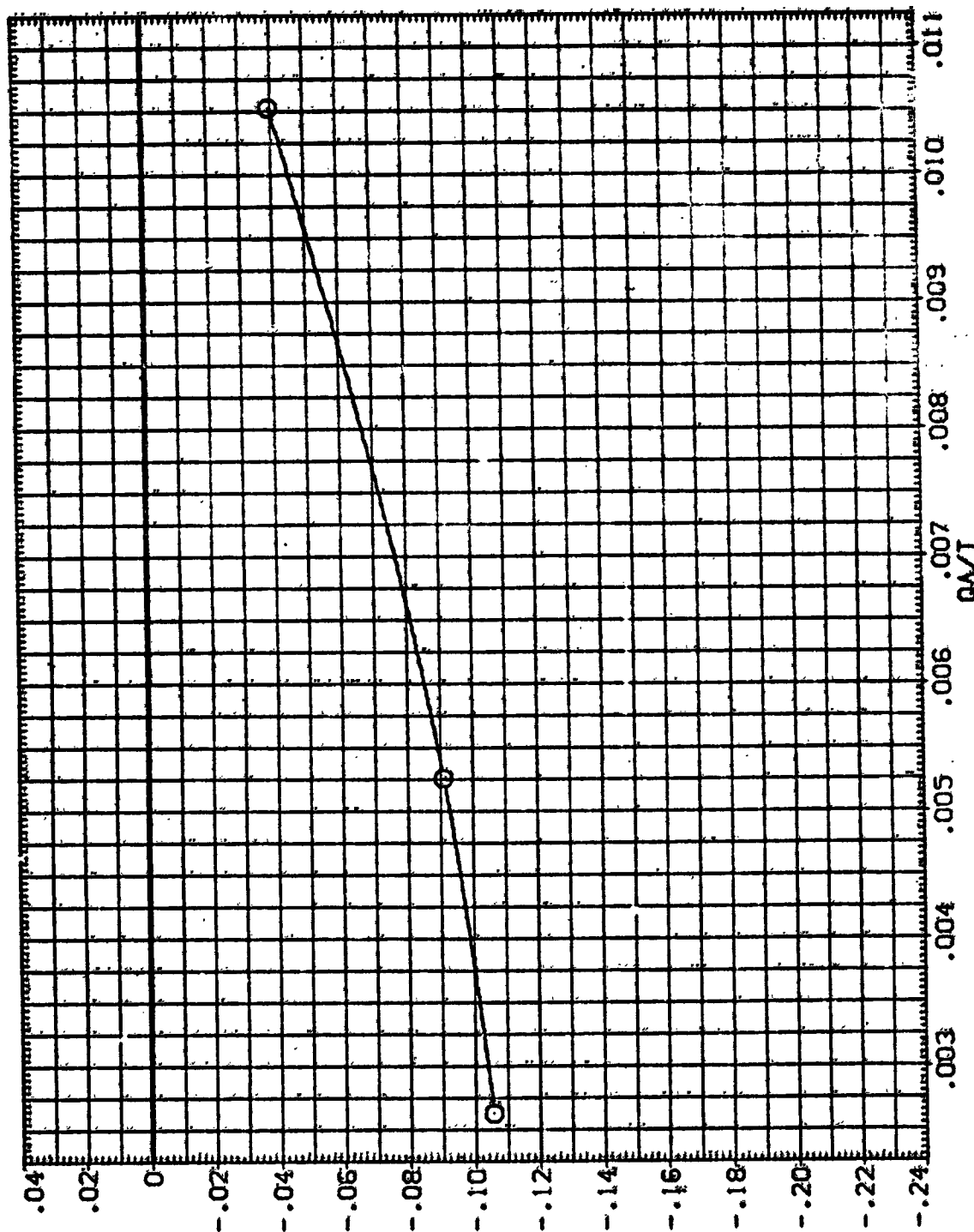


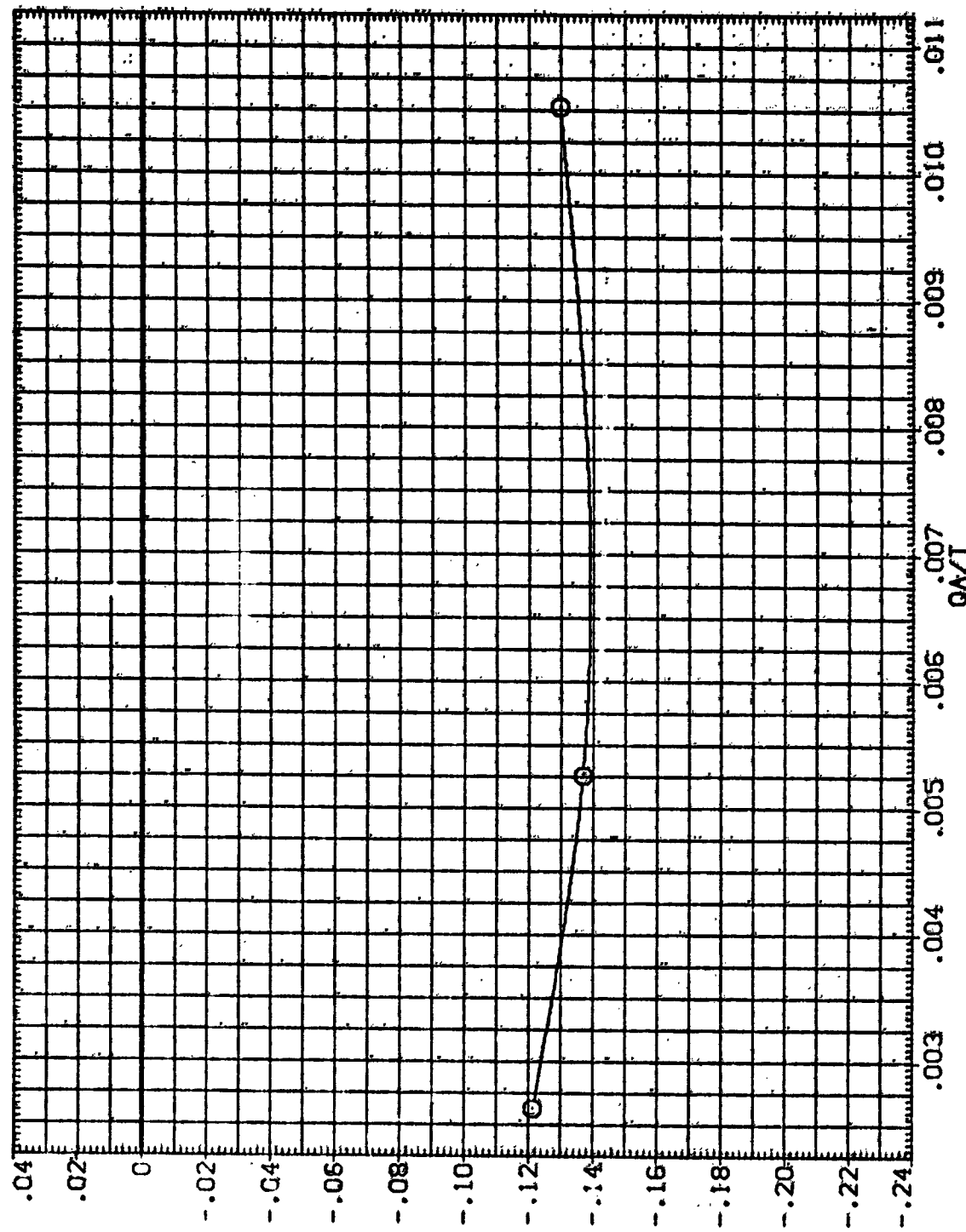
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(J)ALPHA = 10.00

DATA SET SH80L CONFIGURATION DESCRIPTION
(SJA009) 01N79N78 LARC CPHT 110 (NA-22)

ELEVON .000 NO. JET 2.000 BDFLAP .000 BETA .000

REFERENCE INFORMATION
SREF 2650.0000 SO.FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XGRP 1076.2000 IN. X0
YGRP .0000 IN. Y0
ZGRP 375.0000 IN. Z0
SCALE .0180



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, N AF)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(K)ALPHA = 15.00

DATA SET SYMBOL: 01N79N78 LARC CFMT 118 (NA-22)

ELEVON NO. JET BOFLAP BETA

REFERENCE INFORMATION
 SREF 2690.0000 SD. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. XD
 YMRP .0000 IN. YD
 ZMRP 325.0000 IN. ZD
 SCALE .0100

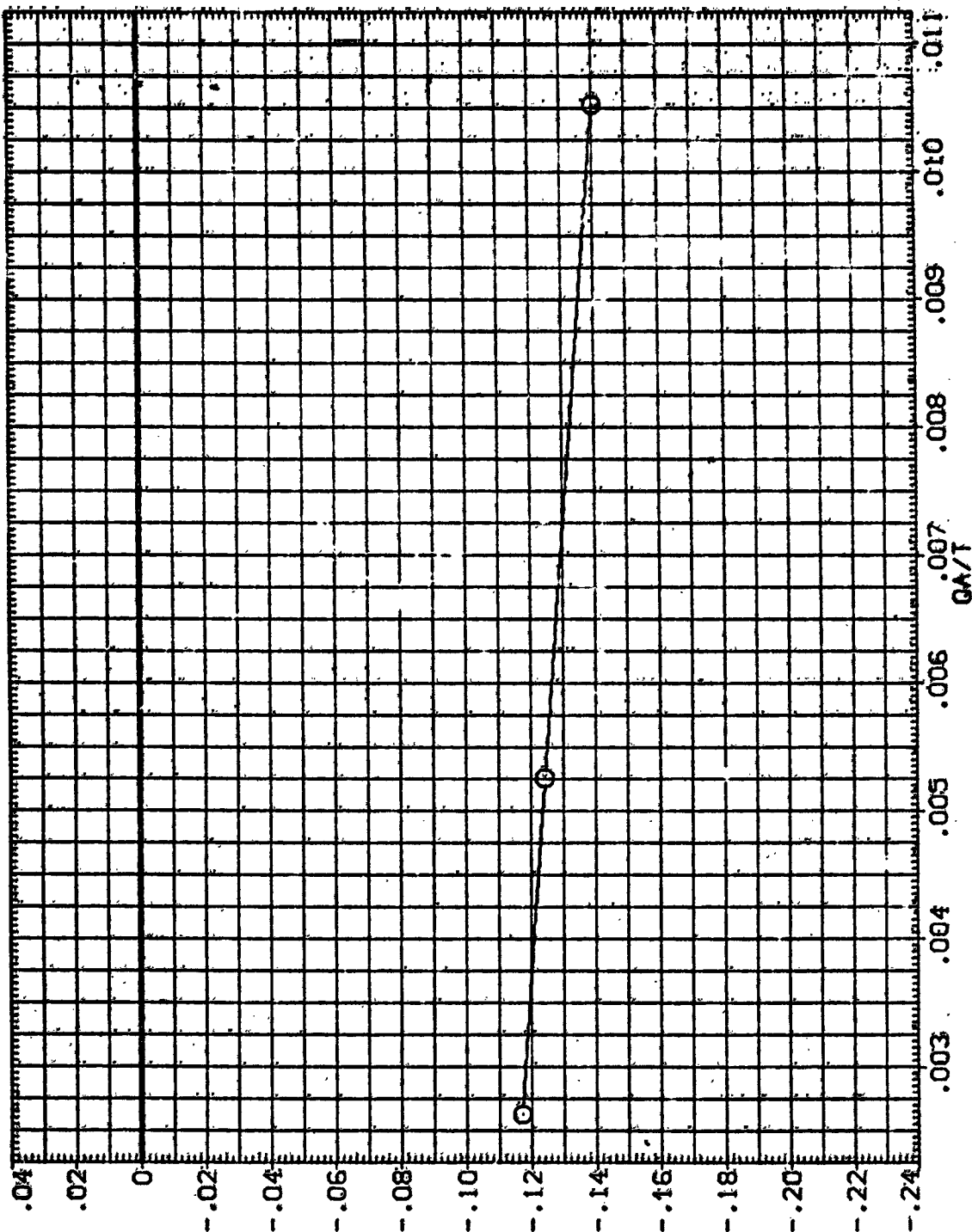


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(L) ALPHA = 20.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SLA309) C 31N79N28 LARG CFHT 118. (MA-22)

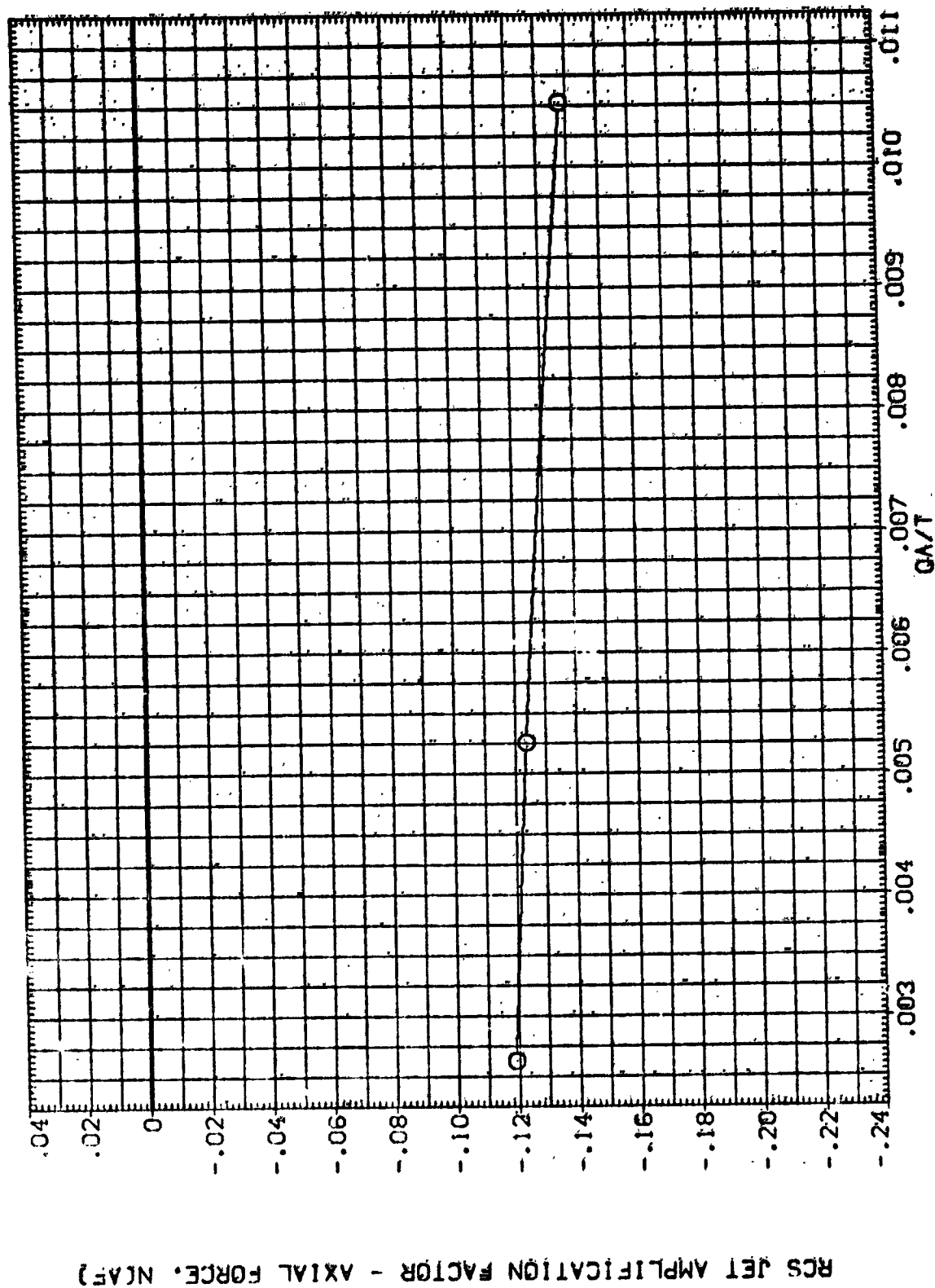
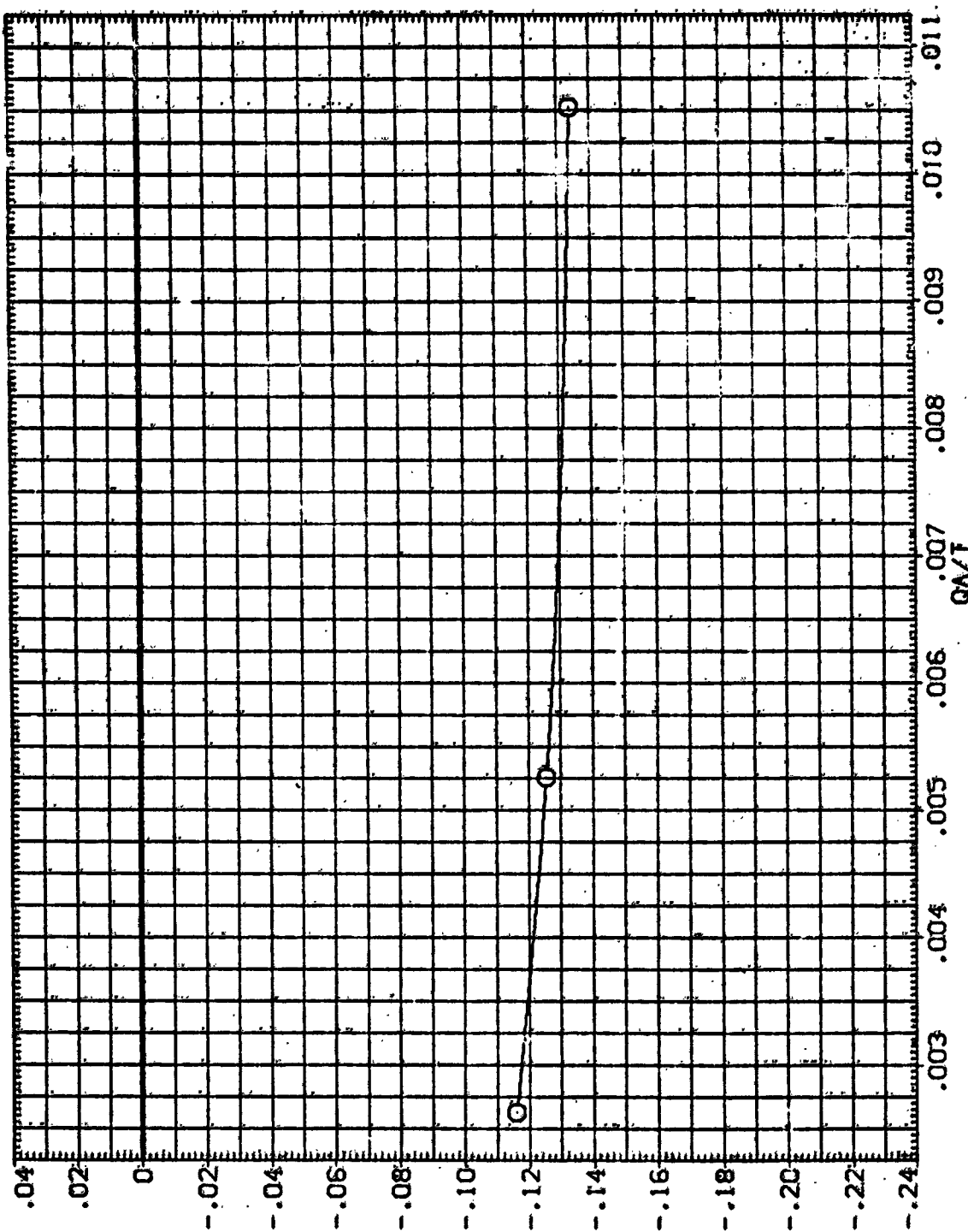


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(M⁺)ALPHA = 25.00

DATA SET SYMBOL (SJ0009) \bigcirc CONFIGURATION DESCRIPTION 8IN79N78 LARC CFM 118 (MA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .800 BETA .000
 REFERENCE INFORMATION:
 SREF 2530.6000 50 FT.
 LREF 424.8000 INCHES
 BREF 935.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.6000 IN. Z0
 SCALE .0100

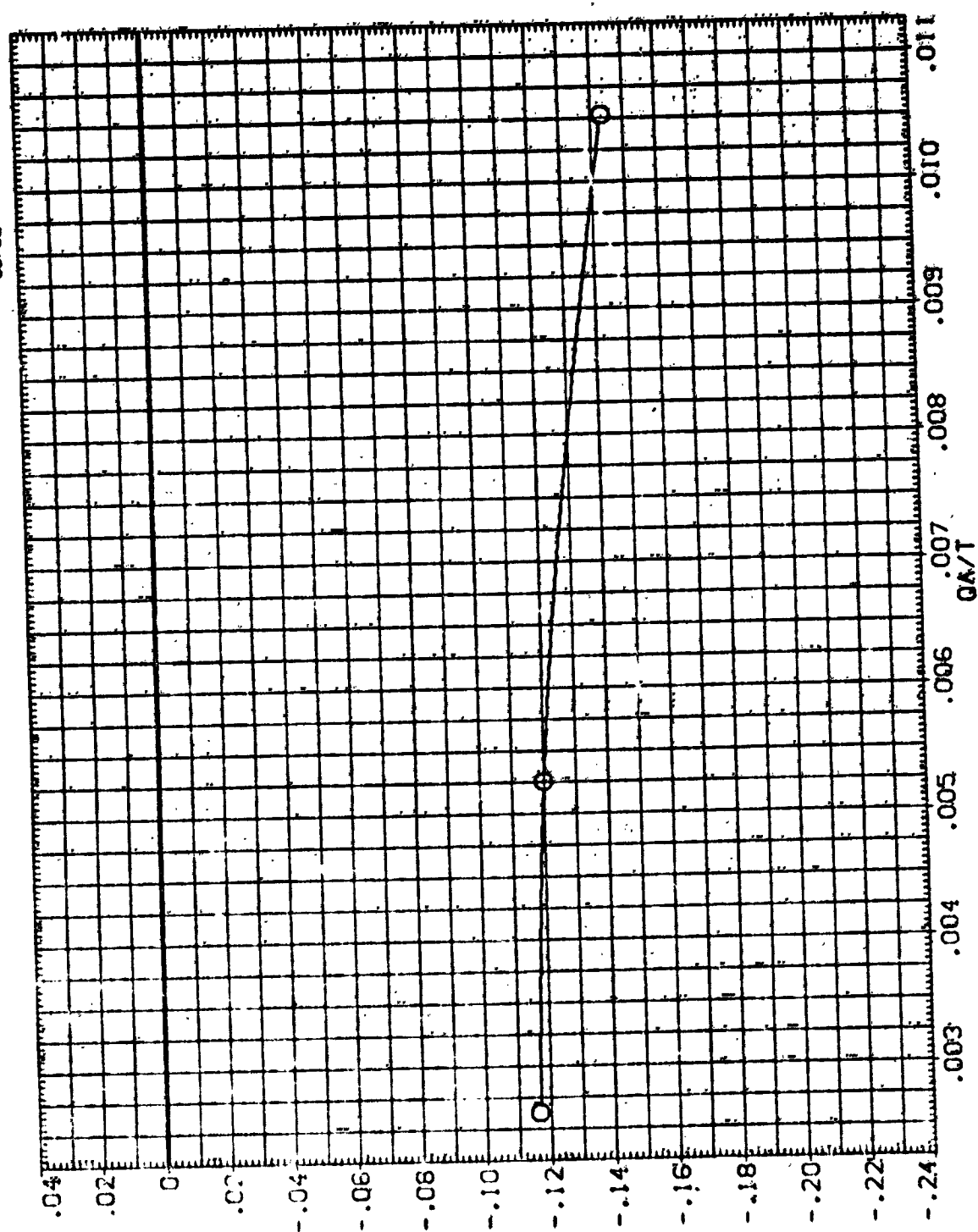


RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, N(AF)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79W78

(N)ALPHA = 30.00

DATA SET SYMBOL (SJA009) \bigcirc CONFIGURATION DESCRIPTION 31179N78 LAPE CHT 118 (MA-22)
 ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000
 REFERENCE INFORMATION
 SREF 2690.0000 SOLE 2690.0000 INCHES
 LREF 424.6800 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NAF)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(C) ALPHA = 35.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA009) O 01N79N78 LARC CFH 118 (MA-22)

ELEVON .000 NO-JET 2.000 BFLAP .000 BETA .000

REFERENCE INFORMATION
SREF 2590.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1076.7600 IN. X0
YMRP .0000 IN. Y0
ZMRP 373.0000 IN. Z0
SCALE .0100

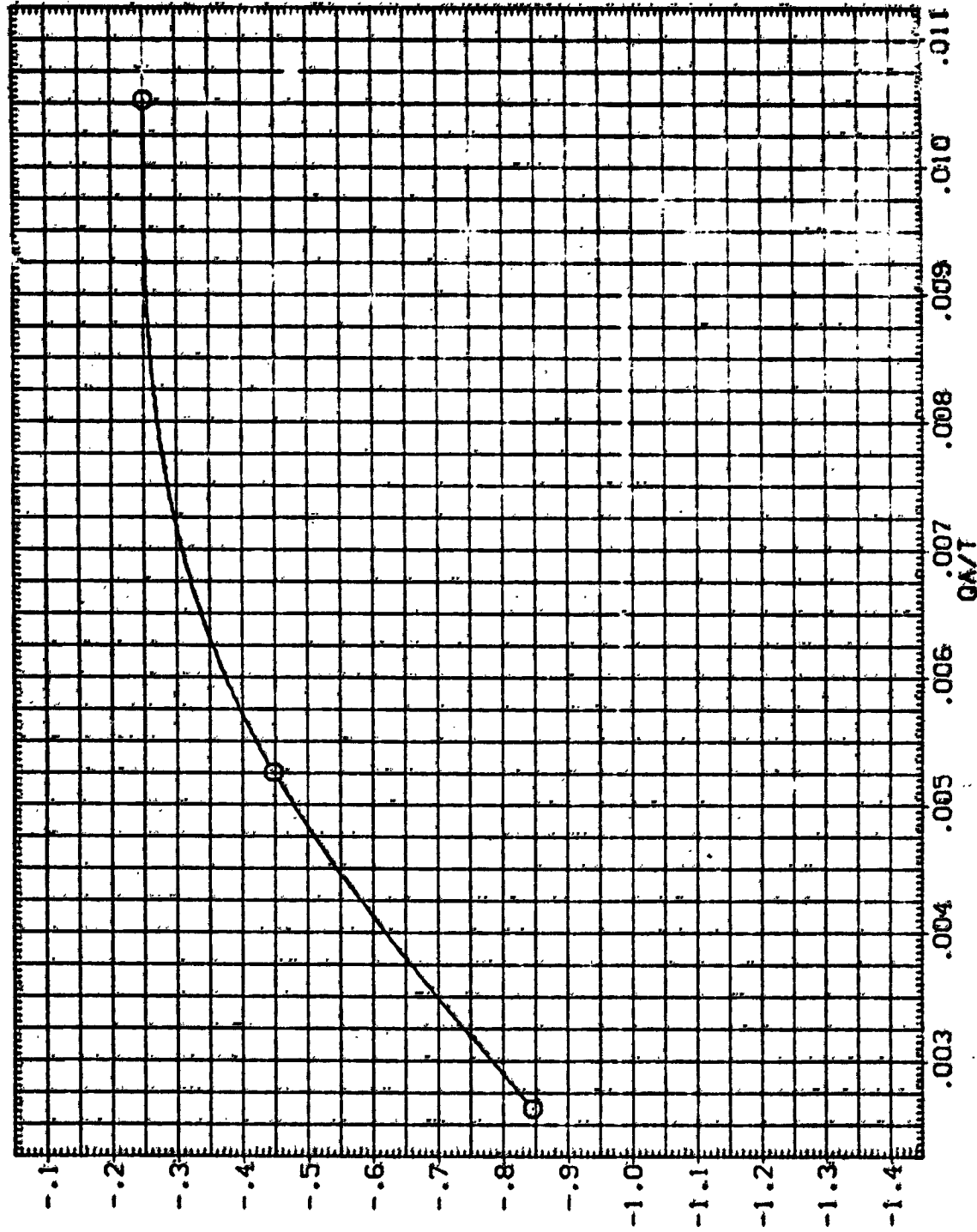


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(A)ALPHA = -8.00

DATA SET SYMBOL: C1N79N78 LARG CFHT 118 (NA-22)

ELEWON: .000 NO. JET: 2.000 BOFLAP: .000 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

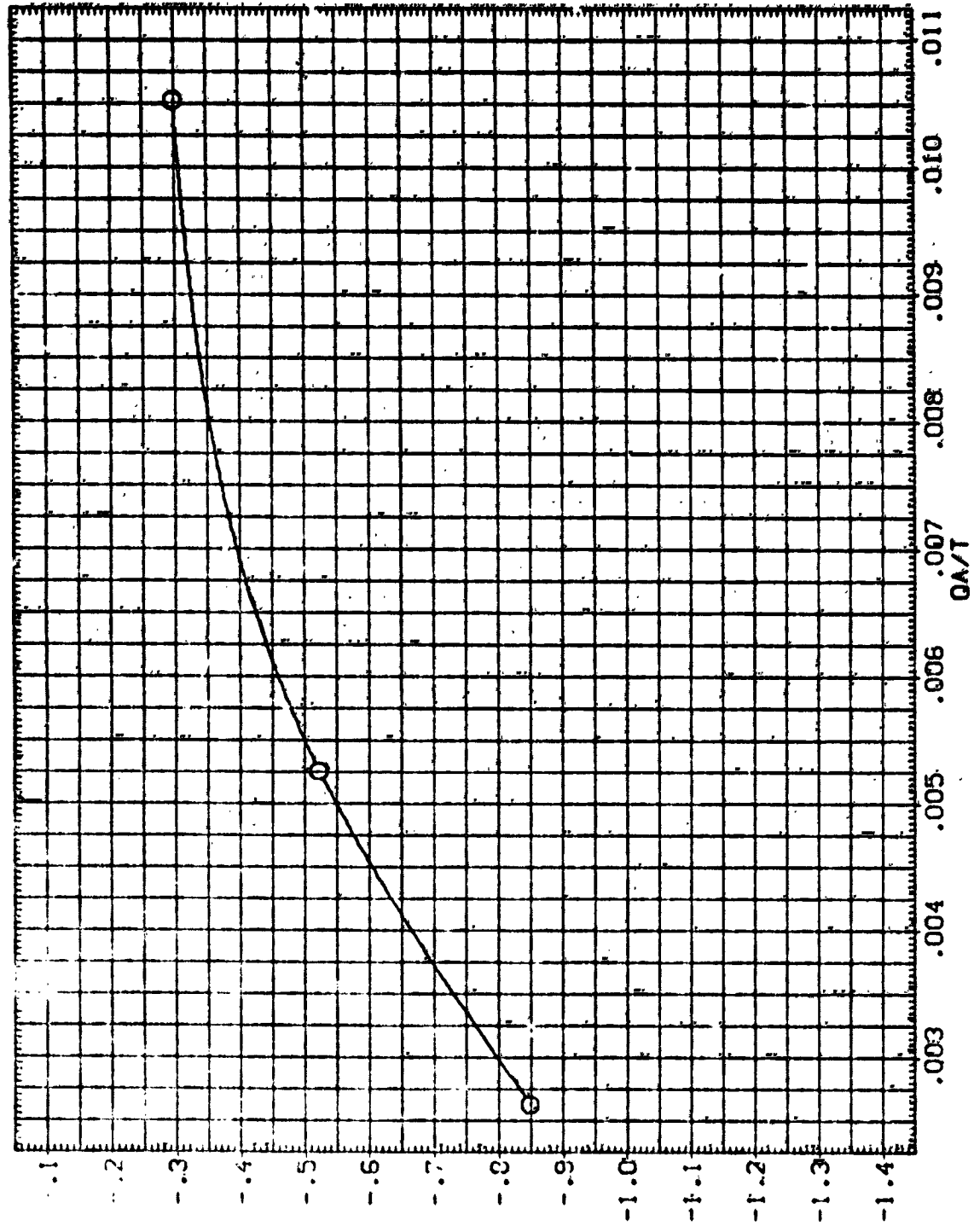


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(B)ALPHA = -6.00

DATA SET SYMBOL: Q
 CONFIGURATION DESCRIPTION: QM79N78 LARC CFHT 118 (MA-22)

ELEV/ON: .000
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION
 SREF: 2690.000 SQ. FT.
 LREF: 474.8000 INCHES
 BREF: 936.5820 INCHES
 XMRP: 1076.7000 IN. YD
 YMRP: .0000 IN. YD
 ZMRP: 375.0000 IN. ZD
 SCALE: .0100

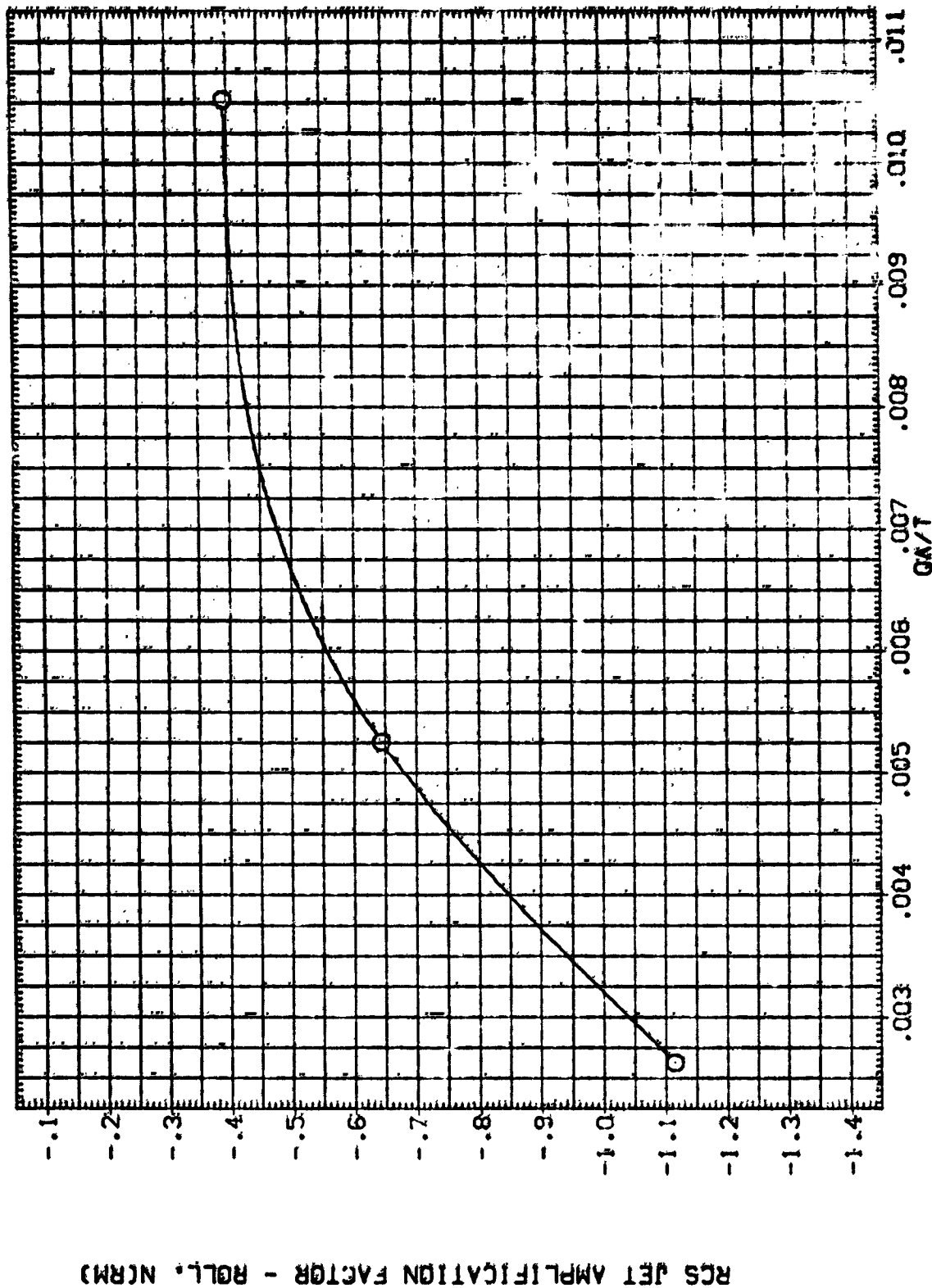


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(C) ALPHA = -4.00

CAT. SET SYM. CONFIGURATION DESCRIPTION
 (5, 10, 20) JIN79N78 LABE CPHT 118 (NA-22)

ELEVATION NO. JET 60FLAP BETA
 .000 2.000 .000 .000

REFERENCE INFORMATION
 SREF 2650.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 YREF 1076.7000 IN. XZ
 YREF 375.0000 IN. YZ
 ZREF 375.0000 IN. YZ
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - ROLL, NORM

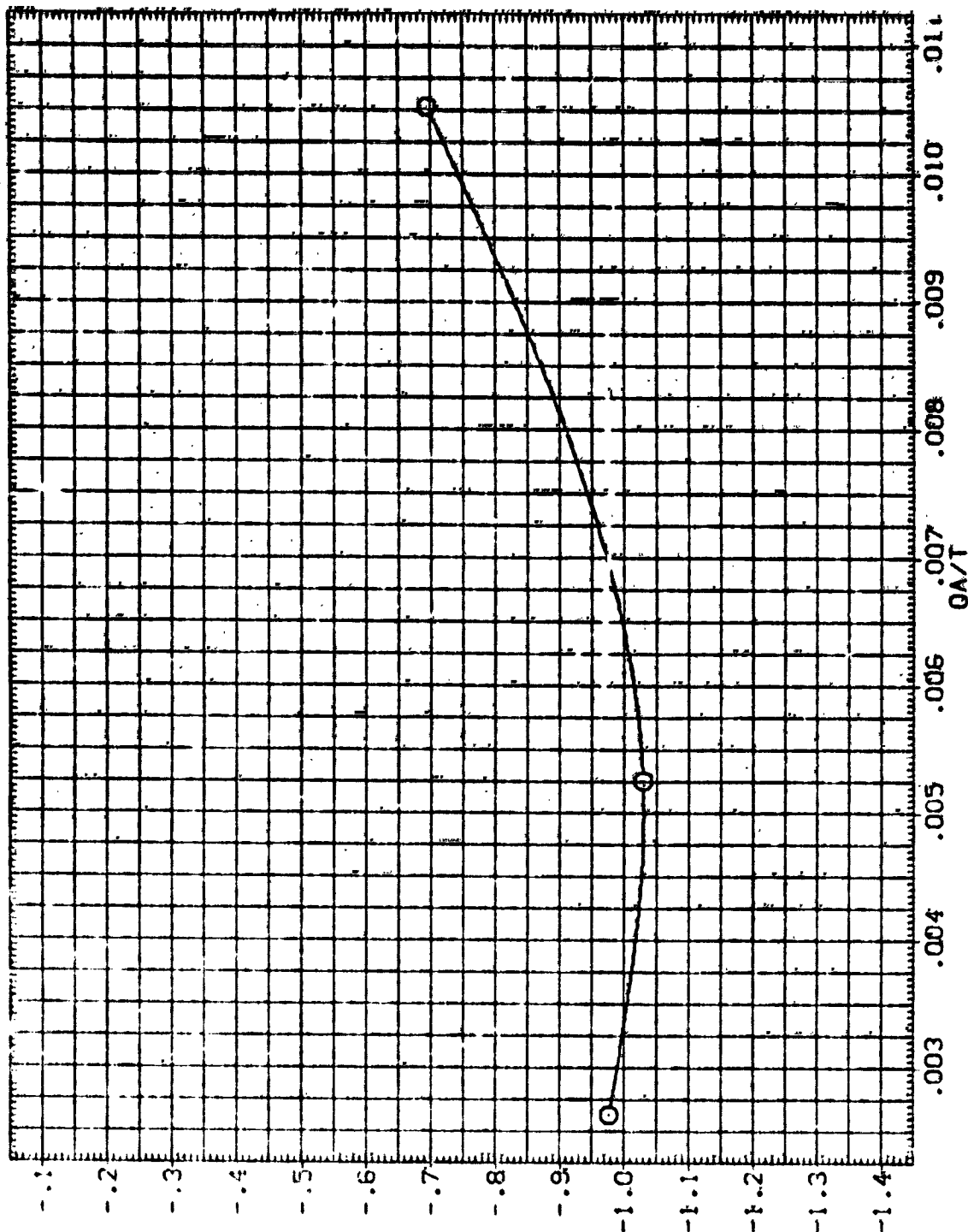


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(O) ALPHA = -2.00

DATA SET SYMBOL (SJA803) O
 CONFIGURATION DESCRIPTION 01N79N78 LARC CPHT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BDFLAP .000 BETA .000
 REFERENCE INFORMATION
 SREF 2690.000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1078.7000 IN. NO
 YREF 375.0000 IN. NO
 ZREF .0100 IN. ZD
 SCALE

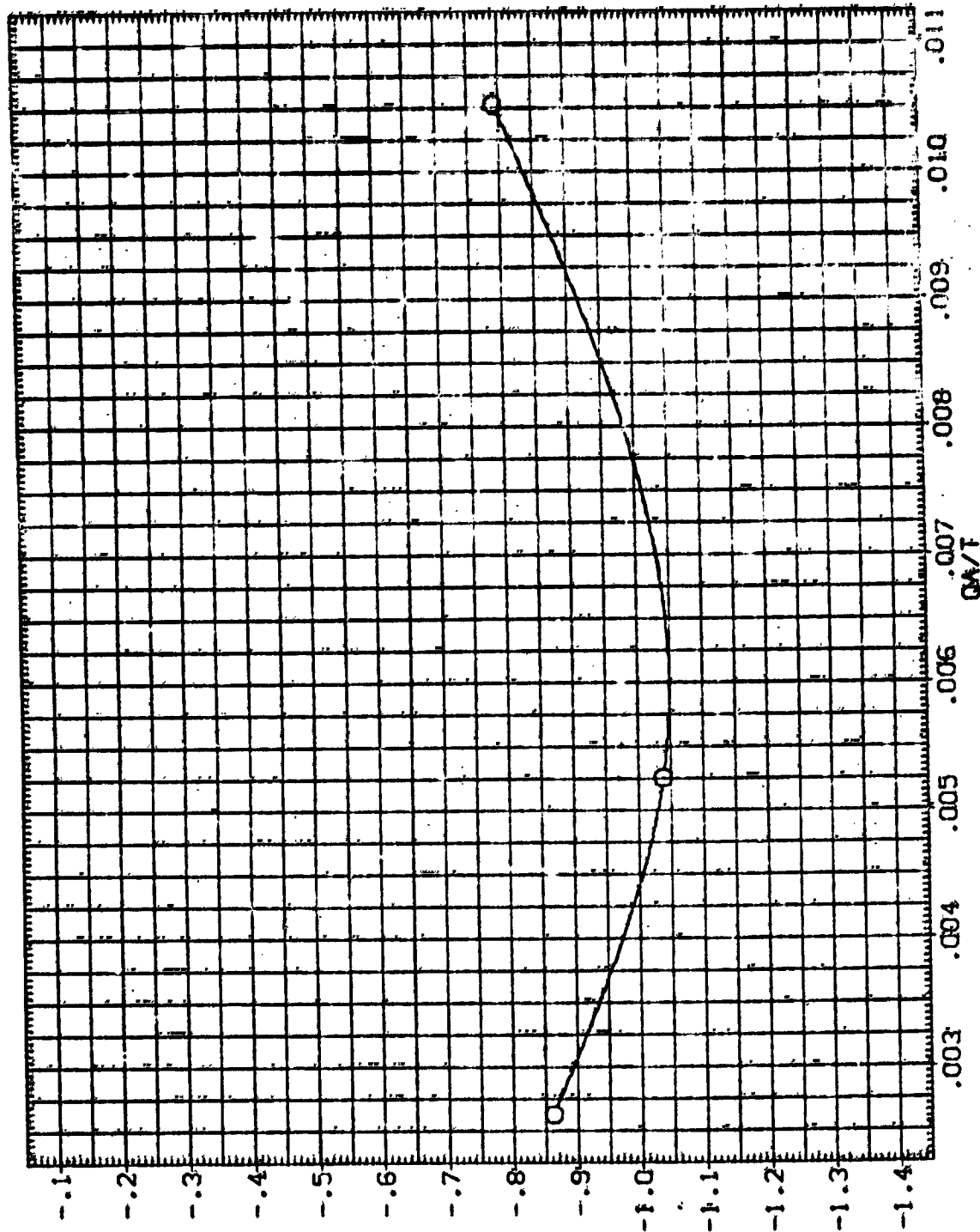


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(ETA ALPHA = .00)

DATA SET SYMBOL: 01J79N78 LARG CPT: 118 (MA-221)

ELEVON: .000 NO JET: 2.000 BDFLAP: .000 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 INCHES
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

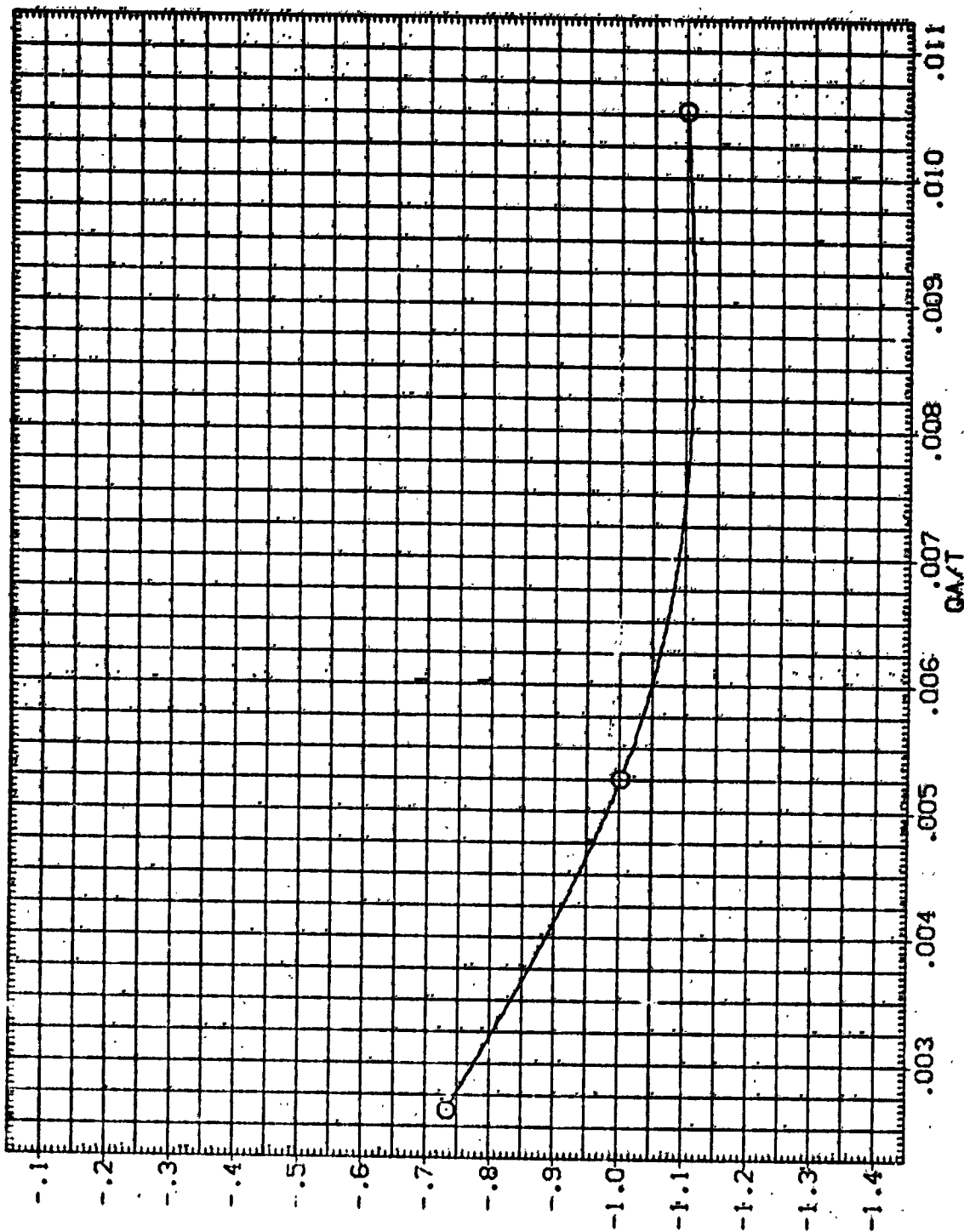


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(F)ALPHA = 2.00

DATA SET SYMBOL (SJA089) \odot CONFIGURATION DESCRIPTION 01N79N78 LARC CFMT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000
 REFERENCE INFORMATION
 SREF 2690.0000 SD. FT.
 LREF 474.8000 INCHES
 XMRP 936.6800 INCHES
 YMRP 1076.7000 IN. X0
 ZMRP .0000 IN. Y0
 SCALE 375.0000 IN. Z0
 .0100

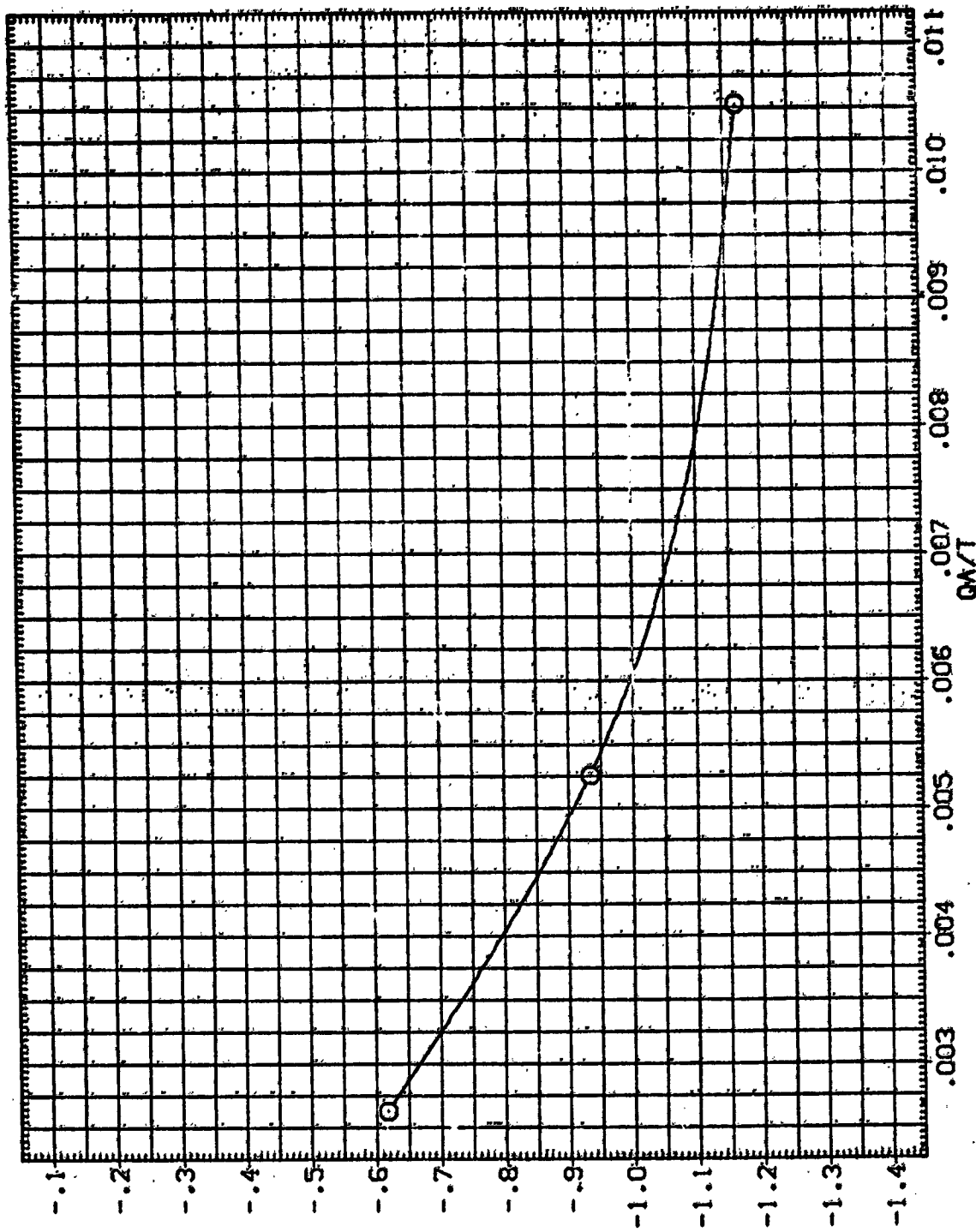


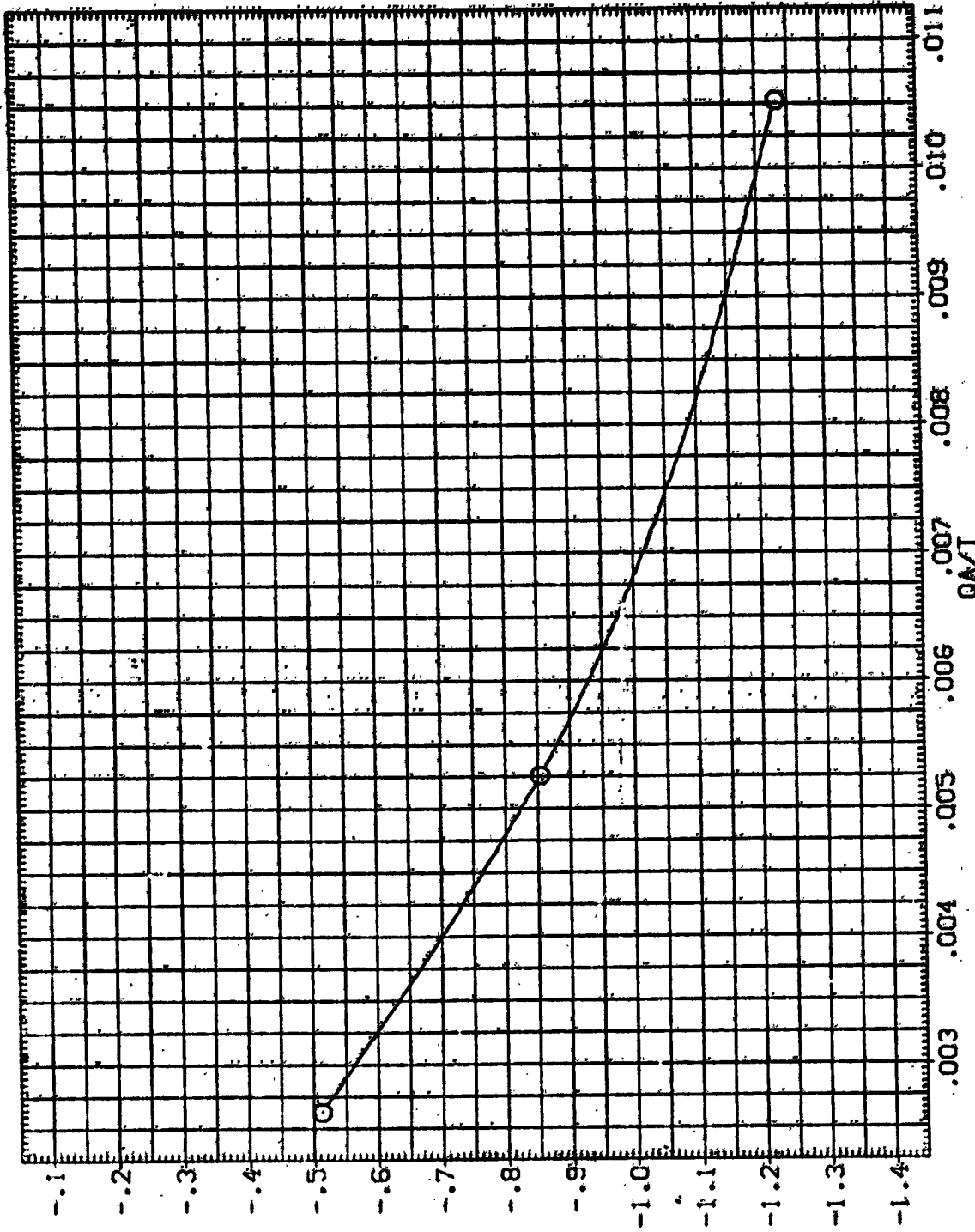
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(G)ALPHA = 4.00

DATA SET SYMBOL (SJACC9) ☐ 01W79N78 LARC CFHT 118 (MA-22)

ELEVON .000 NO. JET 2.080 BOFLAP .080 BETA .080

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1876.2000 IN. X0
 YMRP .0900 IN. Y0
 ZMRP 323.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, N(RM)

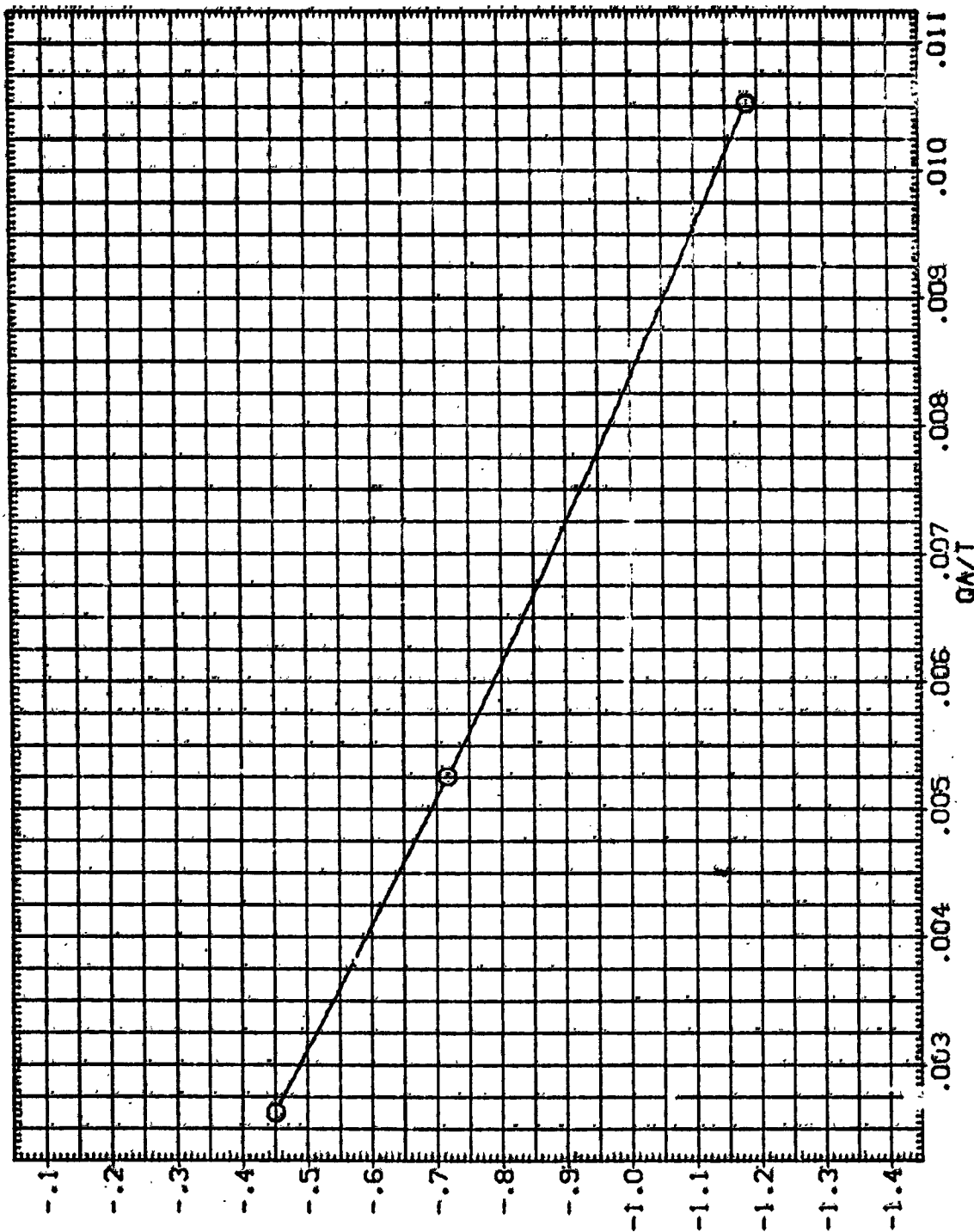
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(H)ALPHA = 6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA009) Q CINZIN78 LARC CFMT 118 (HA-22)

ELEVON NO. JET BOFLAP BETA
.008 2.000 .000

REFERENCE INFORMATION
SREF 2690.0000 SQ. FT.
LREF 474.8800 INCHES
BREF 936.5800 INCHES
XMRP 1076.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, N(RM)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(1) ALPHA = 8.00

DATA SET SYMBOL (SJAD09) Q 01N79N78 LARC CFHT 118 CMA-221

ELEVON .000 NO-JET 2.000 BDFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2698.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1026.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 325.0000 IN. Z0
 SCALE .0100

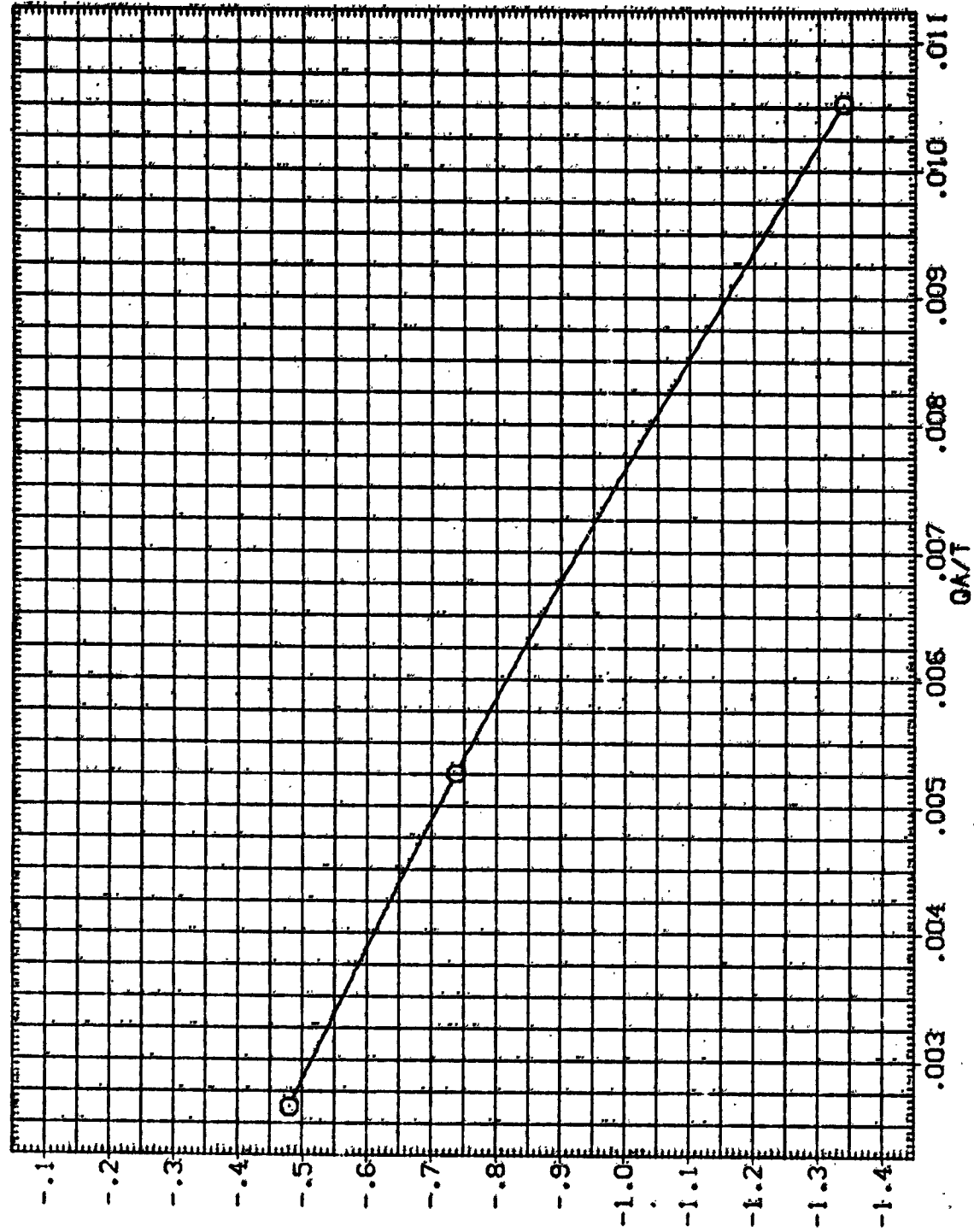


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(JJALPHA = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJAG09) 1. 01N79N78 LARC CFMT 118 (NA-22)

ELEVON NO. JET BD FLAP BETA
.000 2.000 .000 .000

REFERENCE INFORMATION
SREF 2590.0000 50. FT.
LREF 474.8000 INCHES
BREF 536.5800 INCHES
XMRP 1076.7000 IN. Y0
YMRP .0800 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100

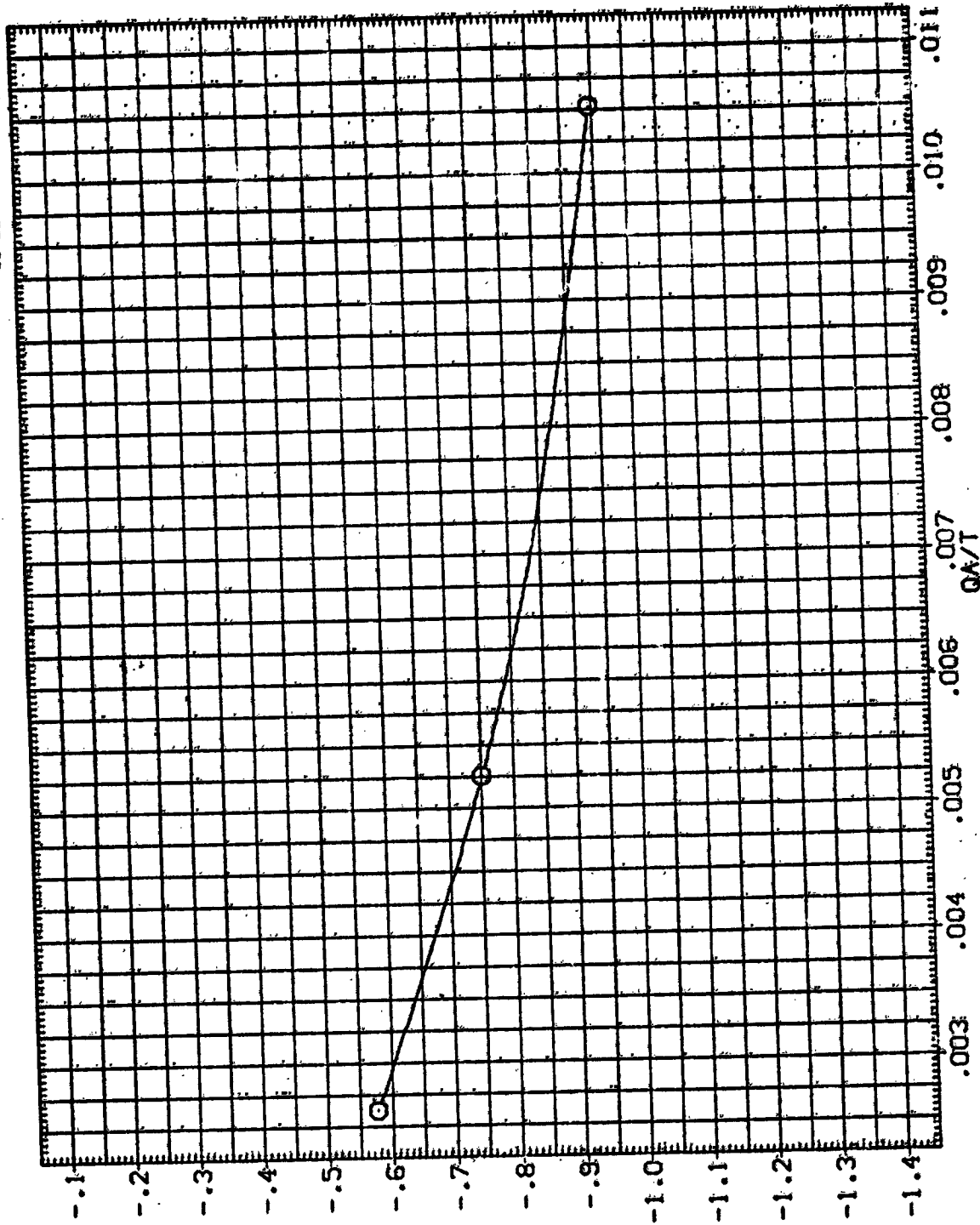
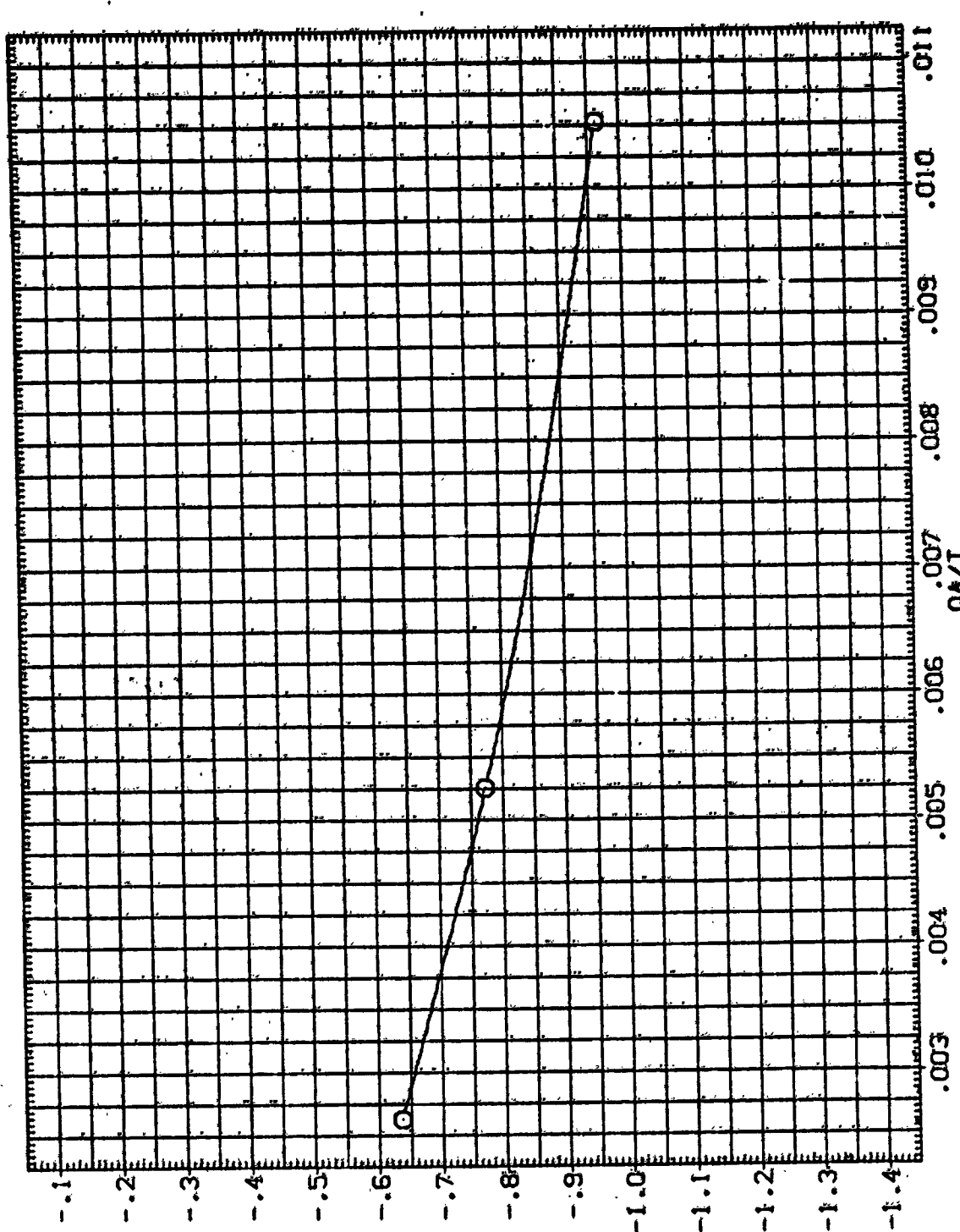


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(K)ALPHA = 15.00

DATA SET SYMBOL (SJA008) \odot CONFIGURATION DESCRIPTION 01N79N78, LARG CFT 118 (MA-22)
 ELEVON .000 NO JET 2.800 BOFLAP .000 BETA .000
 REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XRRP 10926.7000 IN. YD
 YRRP .0000 IN. YD
 ZRRP 3725.0000 IN. ZD
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, N(RM)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(L)ALPHA = 20.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA009) 01N79N78 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
.000 2.000 .000 .000

REFERENCE INFORMATION
SREF 2690.000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.5800 INCHES
XMRP 1076.2000 IN. YD
YMRP .0000 IN. YD
ZMRP 375.8000 IN. ZD
SCALE .0100

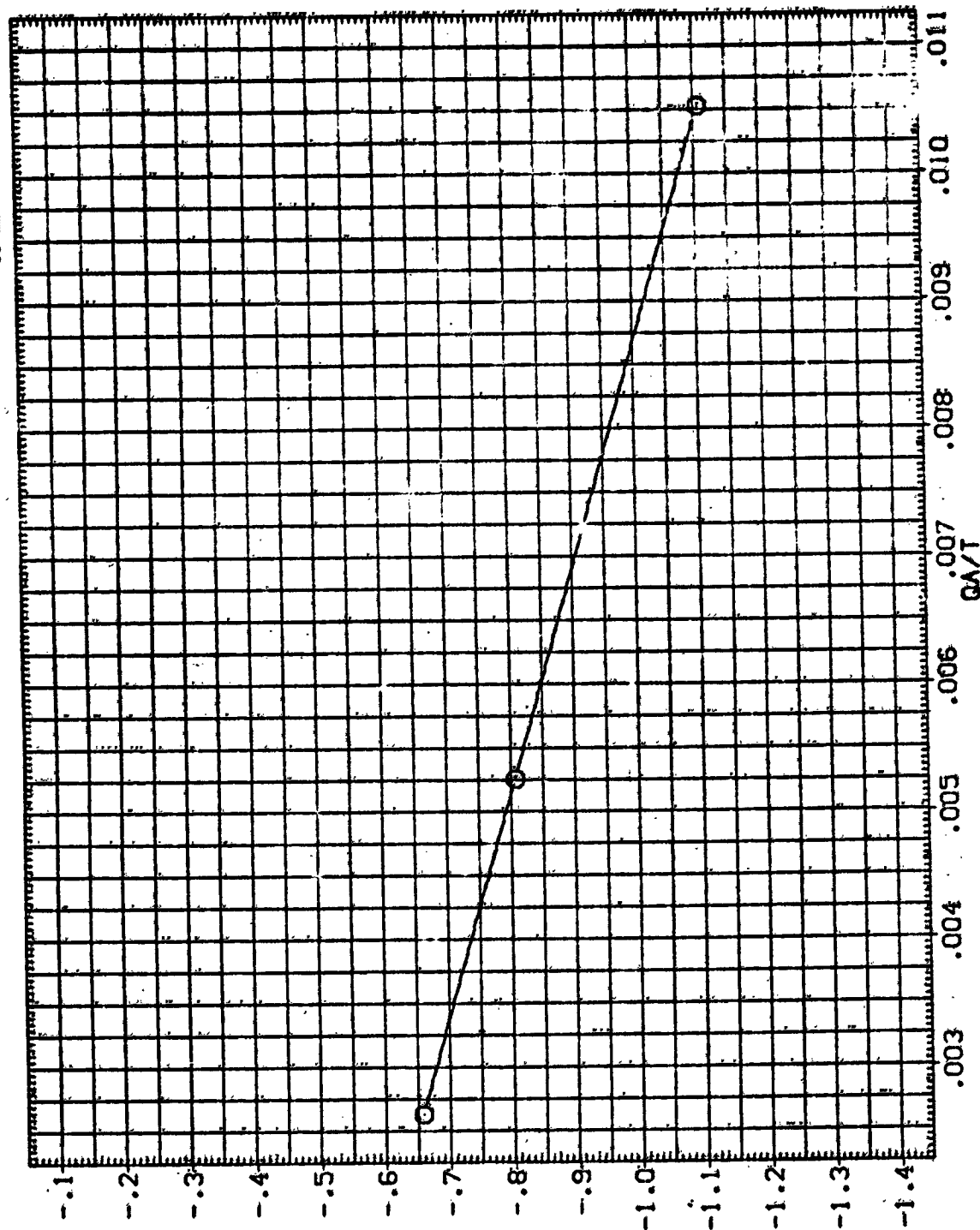


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(M)ALPHA = 25.00

DATA SET SYMBOL (SJA088) Q 01N79N78 LARC CFHT 118 (NA-22)

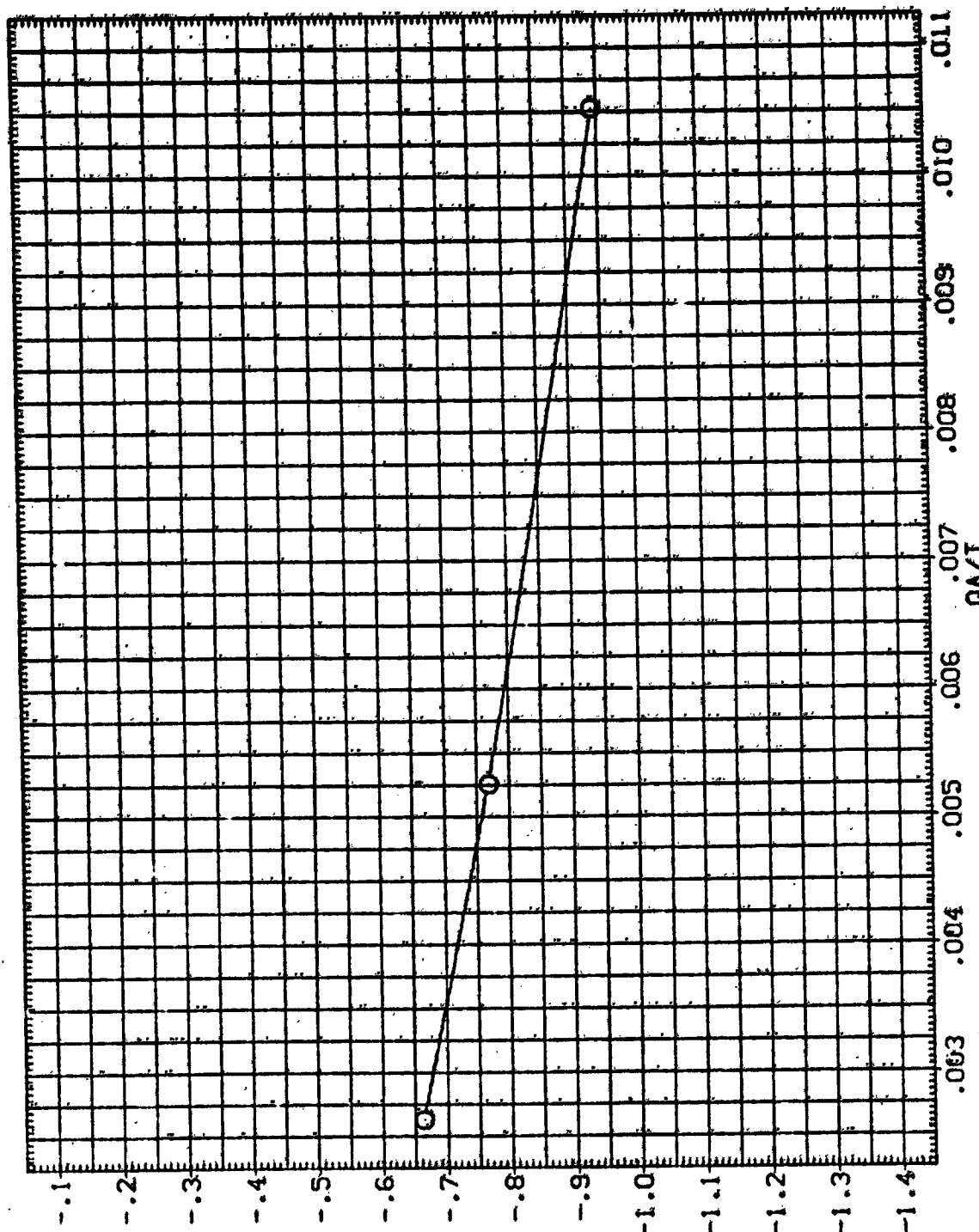
REFERENCE INFORMATION

SREF	2690.0000	SO.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XRRP	1076.7000	IN. TO
YRRP	.0000	IN. TO
ZRRP	375.0000	IN. TO
SCALE	.0100	

ELEVON NO. JET 2.000

BOFLAP .000

BETA .080



RCS JET AMPLIFICATION FACTOR - ROLL, N(RM)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(N)ALPHA = 30.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA009) O CHW29N78 LARC CFM3 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
.000 2.080 .000 .000

REFERENCE INFORMATION
SREF 2630.0000 SQ. FT.
LREF 474.6000 INCHES
BREF 935.6800 INCHES
XRRP 1076.7000 IN. NO.
YRRP .0800 IN. Y0
ZRRP 375.0800 IN. Z0
SCALE .0100

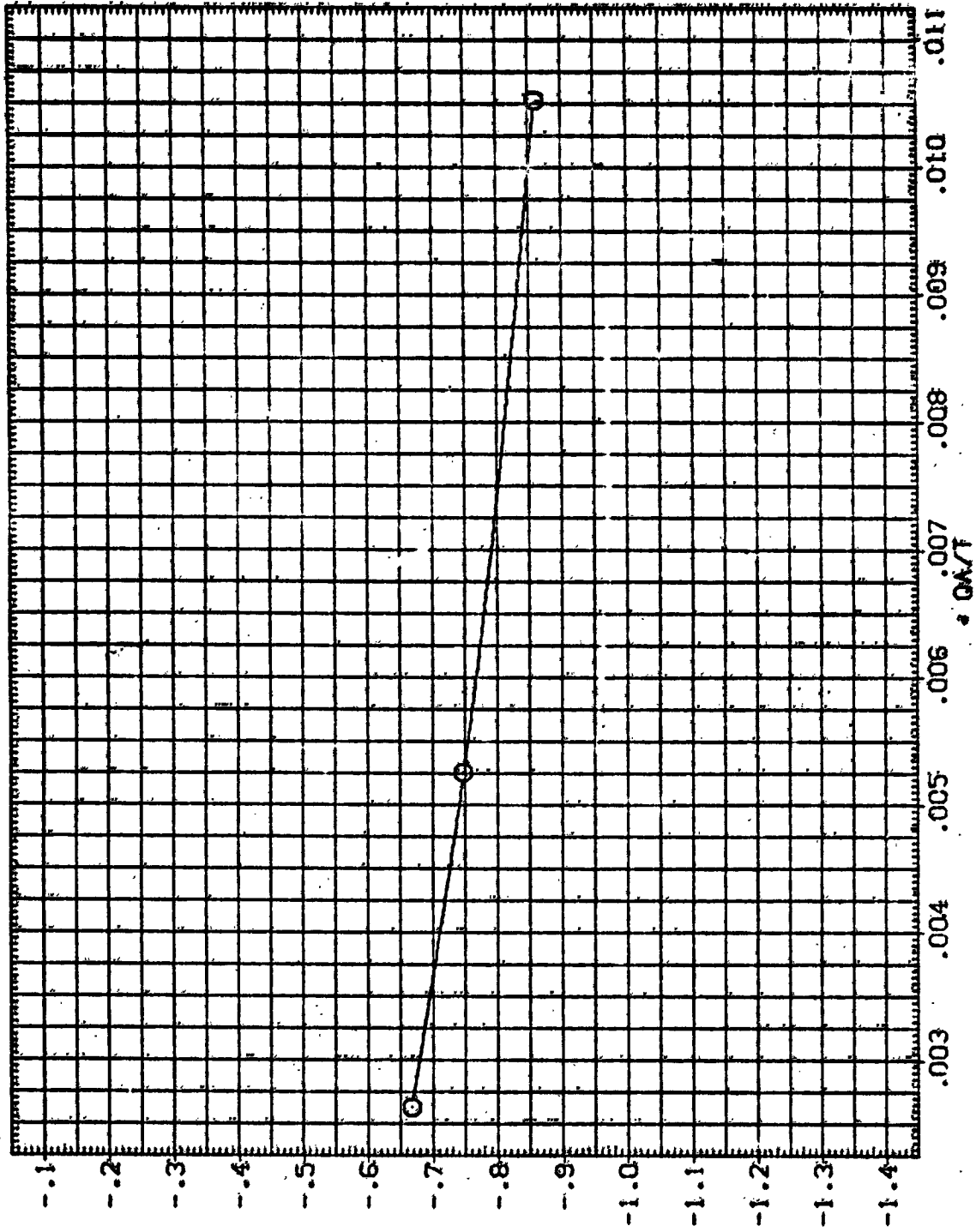
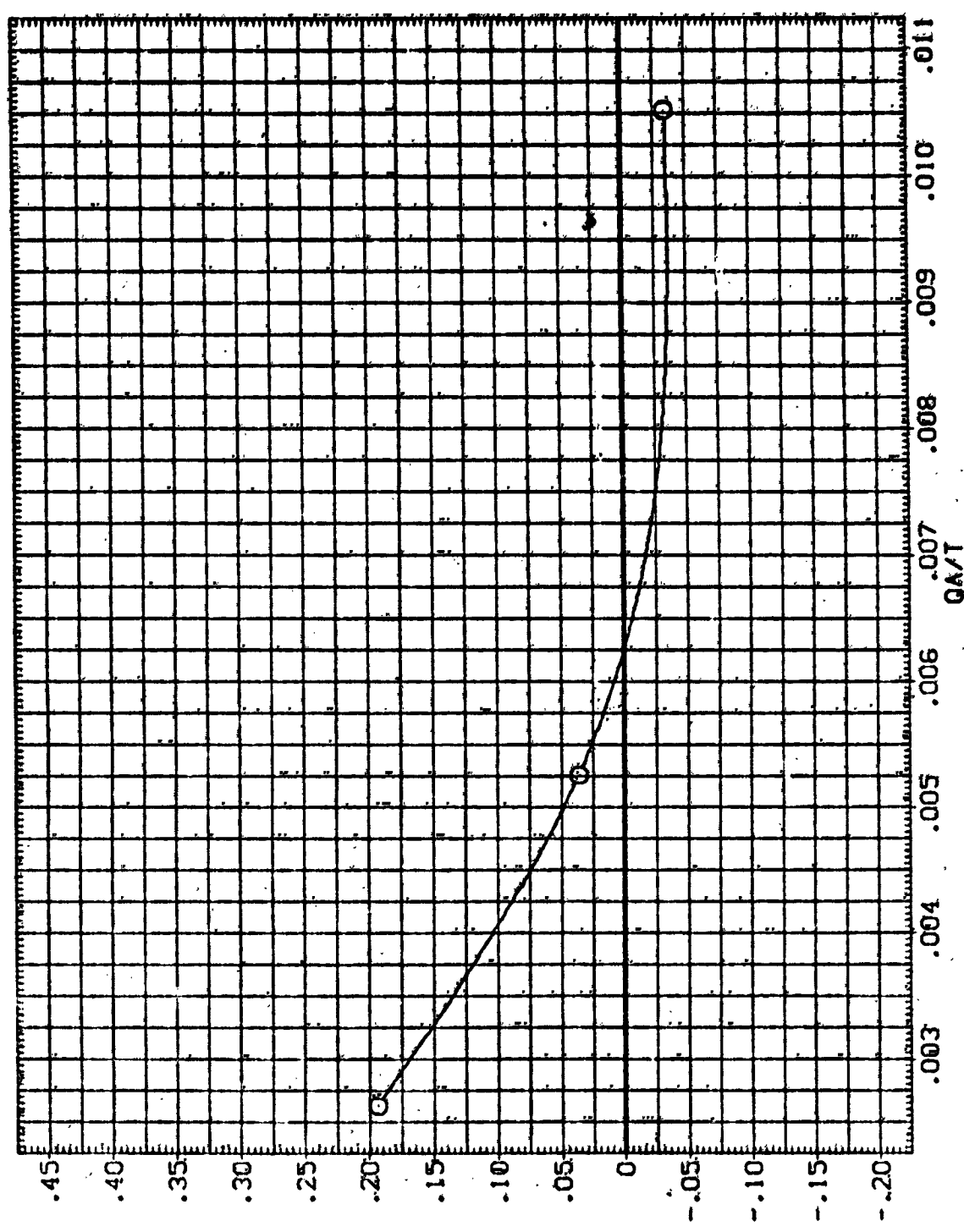


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(O) ALPHA = 35.00

DATA SET SYMBOL	○	01179N78	CONFIGURATION DESCRIPTION:	LARC CFMT 118 (MA-22)
ELEVON	.000	NO-JET	BOFLAP	BETA
		2.000	.000	.000
REFERENCE INFORMATION				
SREF	2690.0000	INCHES	59. FT.	
LREF	474.8000	INCHES		
BREF	936.6800	INCHES		
XMRP	1076.7000	IN. 20		
YMRP	.0000	IN. 20		
ZMRP	375.0000	IN. 20		
SCALE	.0100			



RCS JET AMPLIFICATION FACTOR - YAW, NTRYM

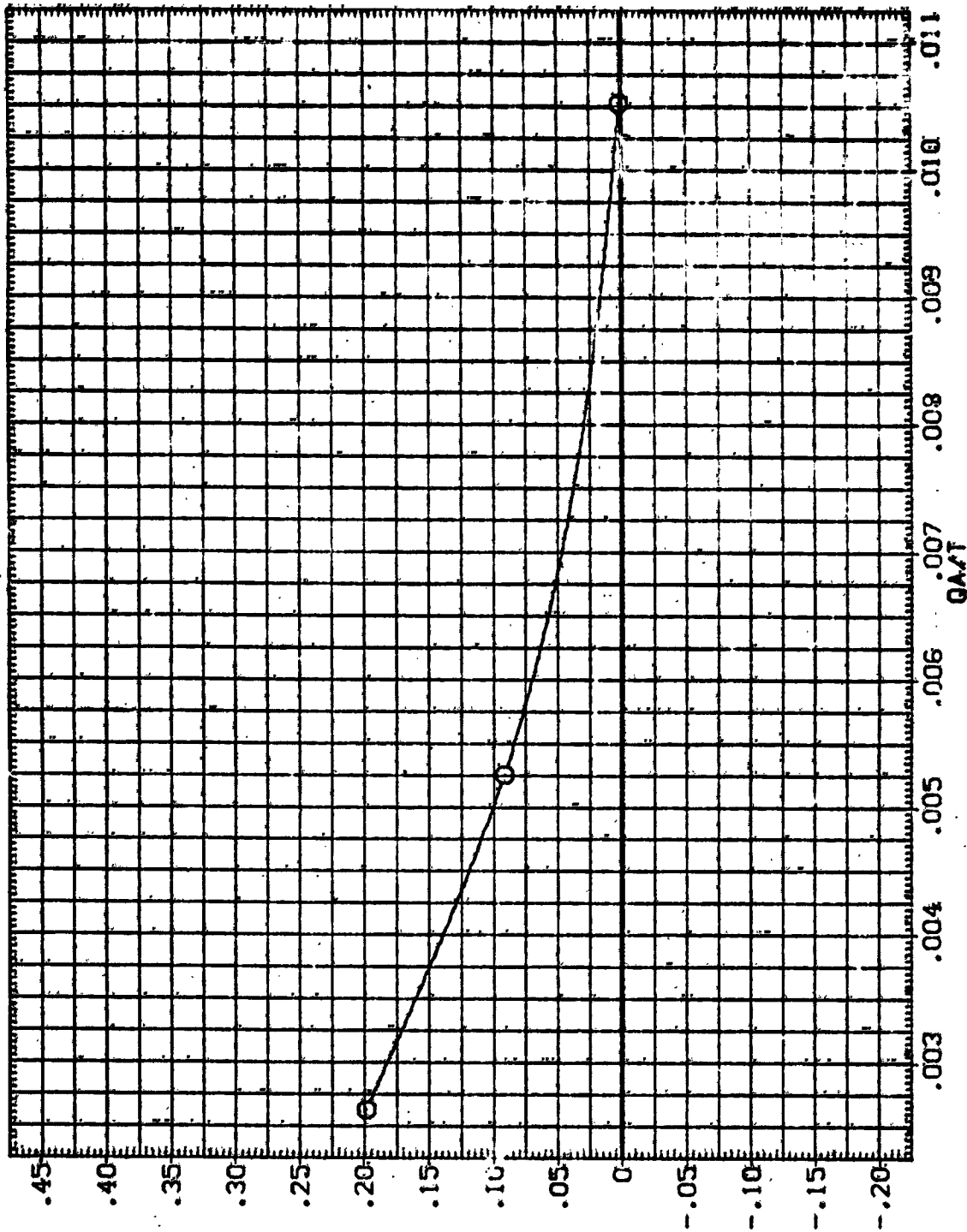
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(A) ALPHA = -8.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SIA089) O 0102078 LARE CFM 118 (HA-22)

ELEVON NO. JET 80FLAP BETA
.000 .000 .000

REFERENCE INFORMATION
SREF 2690.0000 50 FT.
LREF 474.8000 INCHES
BREF 936.6250 INCHES
XREF 1076.7000 IN. X0
YREF .0000 IN. Y0
ZREF 375.0000 IN. Z0
SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, NCM)

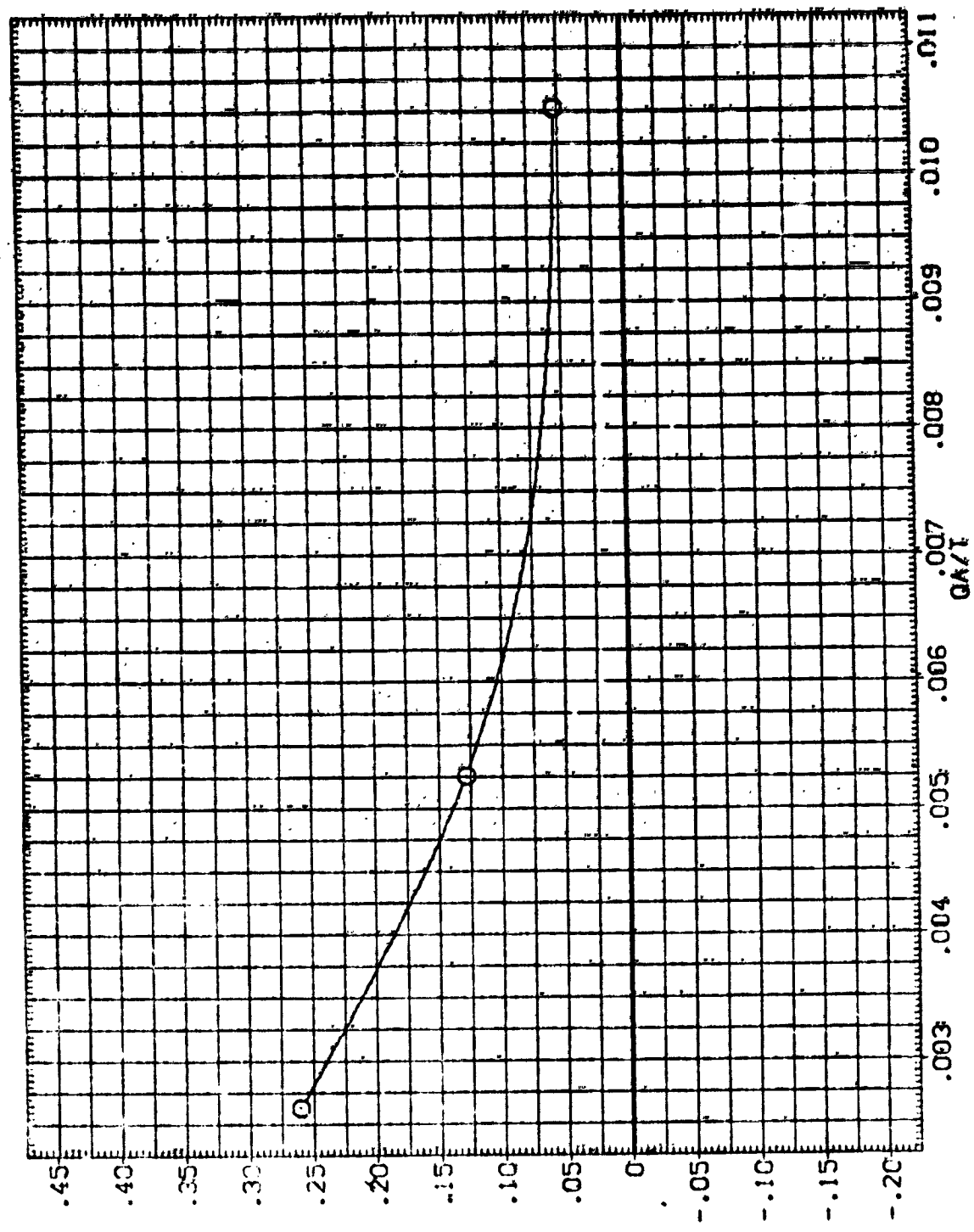
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(B) ALPHA = -6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SYMBOL) ○ 31N79N78 LARC CENT 118 (HA-22)

ELEVATION NO. JET BOFLAP DET.
 .000 2.000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8800 INCHES
 BREF 936.6800 INCHES
 KREF 1076.7000 IN. KG
 WREF 375.0000 IN. KG
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, NCYM

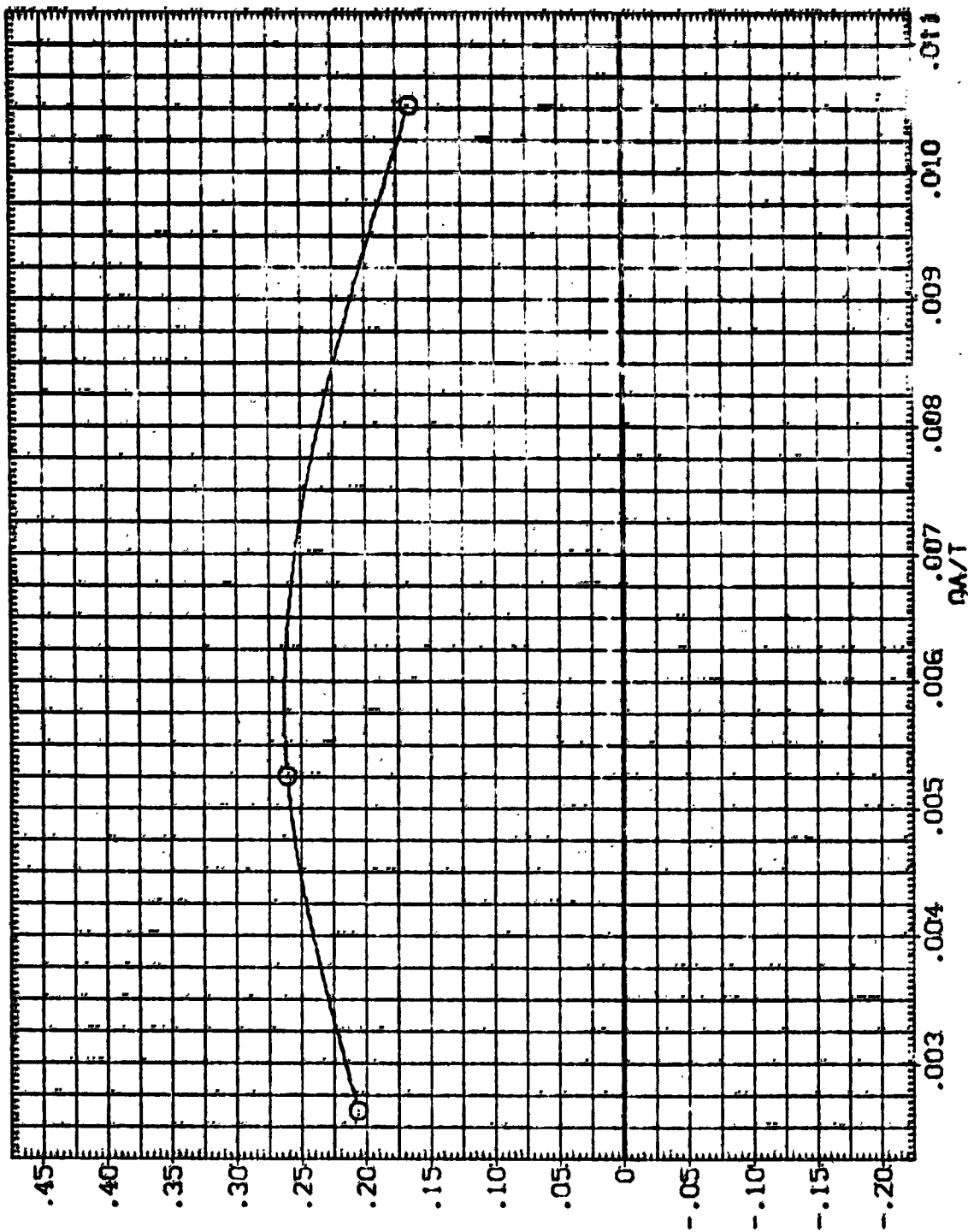
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(CJALPHA = -4.00

DATA SET SYMBOL: 01479N78 LARC CFM 118 (NA-22)

ELEVON: .000 MSJET: 2.000 BOFLAP: .000 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.00 IN SD.FT.
 LREF: 474.80 IN INCHES
 BREF: 936.88 IN INCHES
 XREF: 1076.70 IN IN. AD
 YREF: .0000 IN. V0
 ZREF: 375.0000 IN. Z0
 SCALE: .0100



RCS JET AMPLIFICATION FACTOR - YAW, NCM)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N72

(DJALPHA = -2.00

DATA SET SYMBOL:
 CONFIGURATION DESCRIPTION:
 01N79N78 LARG CFT 118 (MA-22)

ELEVON .0008 NO-JET 2.000 BOPLAP .0008 BETA .000

REFERENCE INFORMATION:
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BRREF 936.6800 INCHES
 XMRP 1076.7000 IN. YD
 YMRP .0000 IN. YD
 ZMRP 323.0000 IN. YD
 SCALE .0100

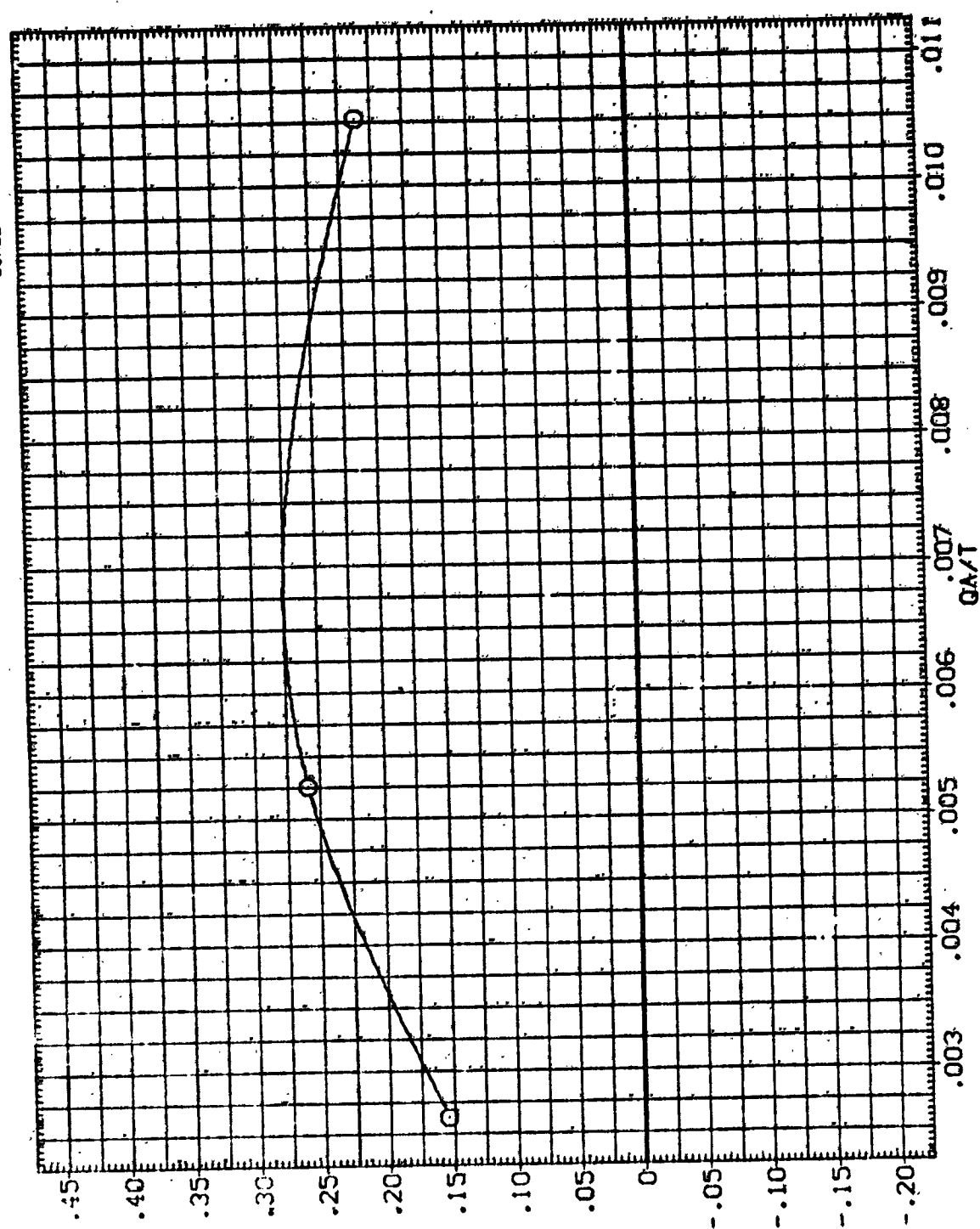


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

CEJALPHA = .00

DATA SET SYMBOL: 01N79N78 LARC CFMR 118 (MA-22)

ELEVATION: .000 HORIZONTAL: .000

REFERENCE INFORMATION
 SREF: 2690.0000 50. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 YREF: 1076.2000 IN. 10
 ZREF: 375.0000 IN. 20
 SCALE: .0100

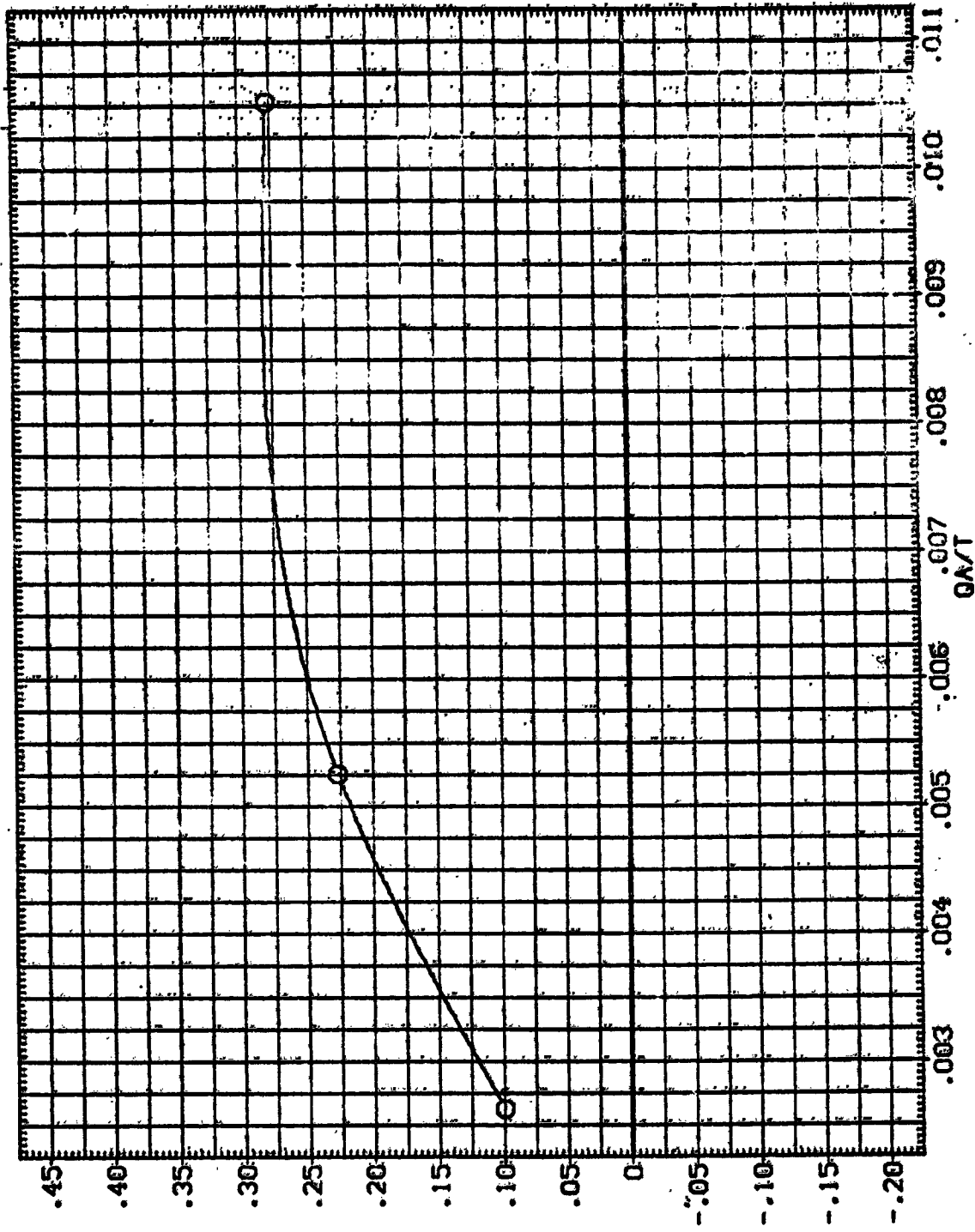


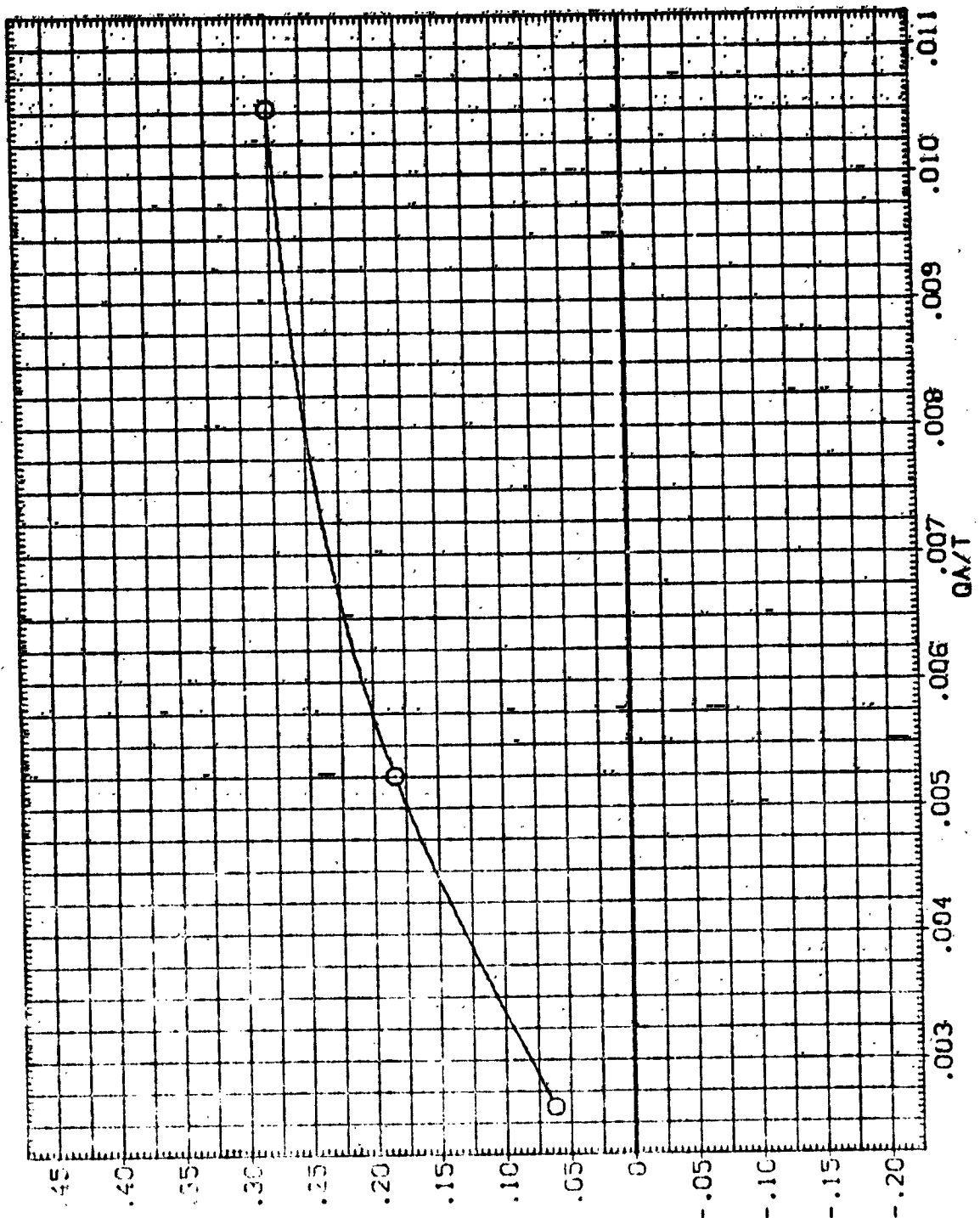
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(F)ALPHA = 2.00

DAT- SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA009) ○ 01N79N78 LARG CFT 118 (CA-12)

ELEVON NO. JET BOFLAP BETA
 .000 2.000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. VO
 YMRP 375.0000 IN. VO
 ZMRP .0100 IN. VO
 SCALE



RCS JET AMPLIFICATION FACTOR - YAW, N(YM)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(G)ALPHA = 4.00

DATA SET SYMBOL: O CONFIGURATION DESCRIPTION: 6179N78 LARC CFHT 118 (MA-22)

ELEVON .080 NO. JET 2.000 BOFLAP .000 BETA .000
 REFERENCE INFORMATION:
 SREF 2630.0000 SO. FT.
 LREF 471.8000 INCHES
 BREF 936.8000 INCHES
 XMRP 1076.7000 IN. 10
 YMRP 375.0000 IN. 10
 ZMRP 40100 IN. 20
 SCALE

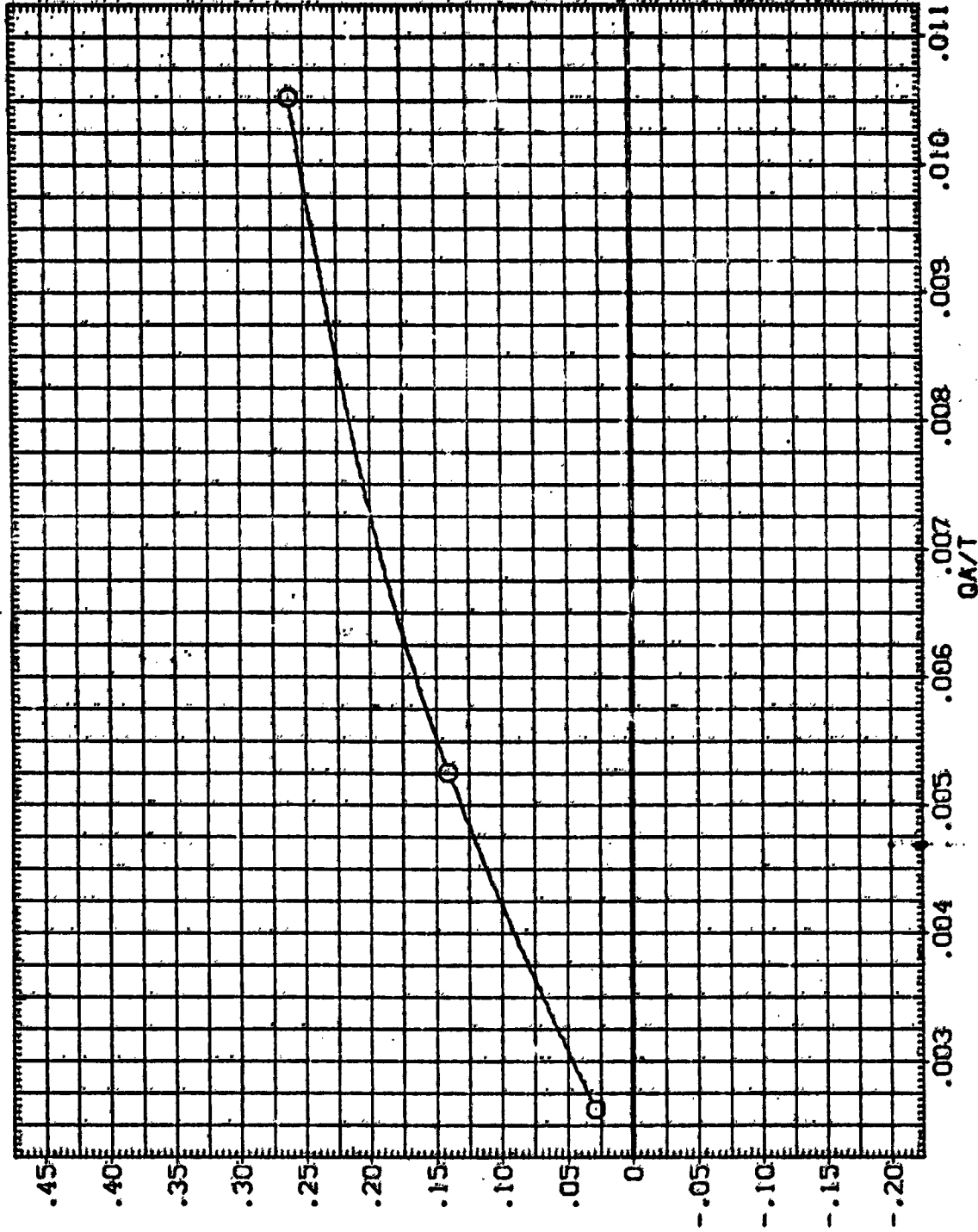


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(CH)ALPHA = 6.00

DATA SET SYMBOL (SIAD09) ○

CONFIGURATION DESCRIPTION: 31179N78 LAPE CF IT 118 (HA-22)

ELEVON: .000

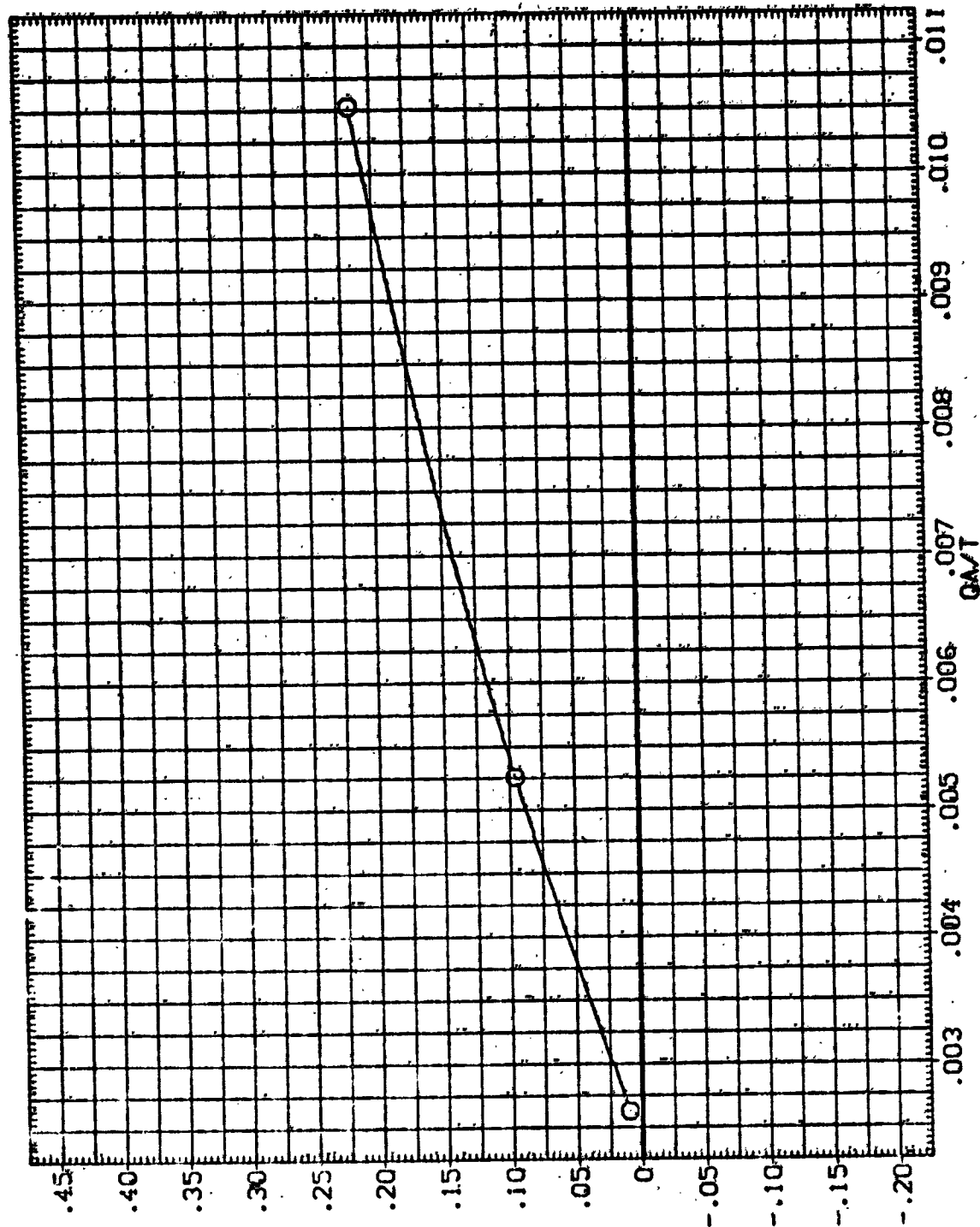
NO. JET: 2.990

BOFLAP: .000

PETA: .000

REFERENCE INFORMATION

SRET	2690.0800	SO.FT.
LREF	474.8090	INCHES
BREF	936.6890	INCHES
XPRP	1076.7000	IN. TO
YPRP	375.0000	IN. TO
ZPRP	375.0000	IN. TO
SCALE	.0100	



RCS JET AMPLIFICATION FACTOR - YAW, NCM

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(1) ALPHA = 8.00

DATA SET SYMBOL: 01N79N78 LARC CFHT 118 (NA-22)

ELEVON: .000 NO. JET: 2.000 BOFLAP: .000 BETA: .000

REFERENCE INFORMATION
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6600 INCHES
 YMRP: 1076.7000 IN. Y0
 YMRP: 373.0000 IN. Y0
 SCALE: .0100

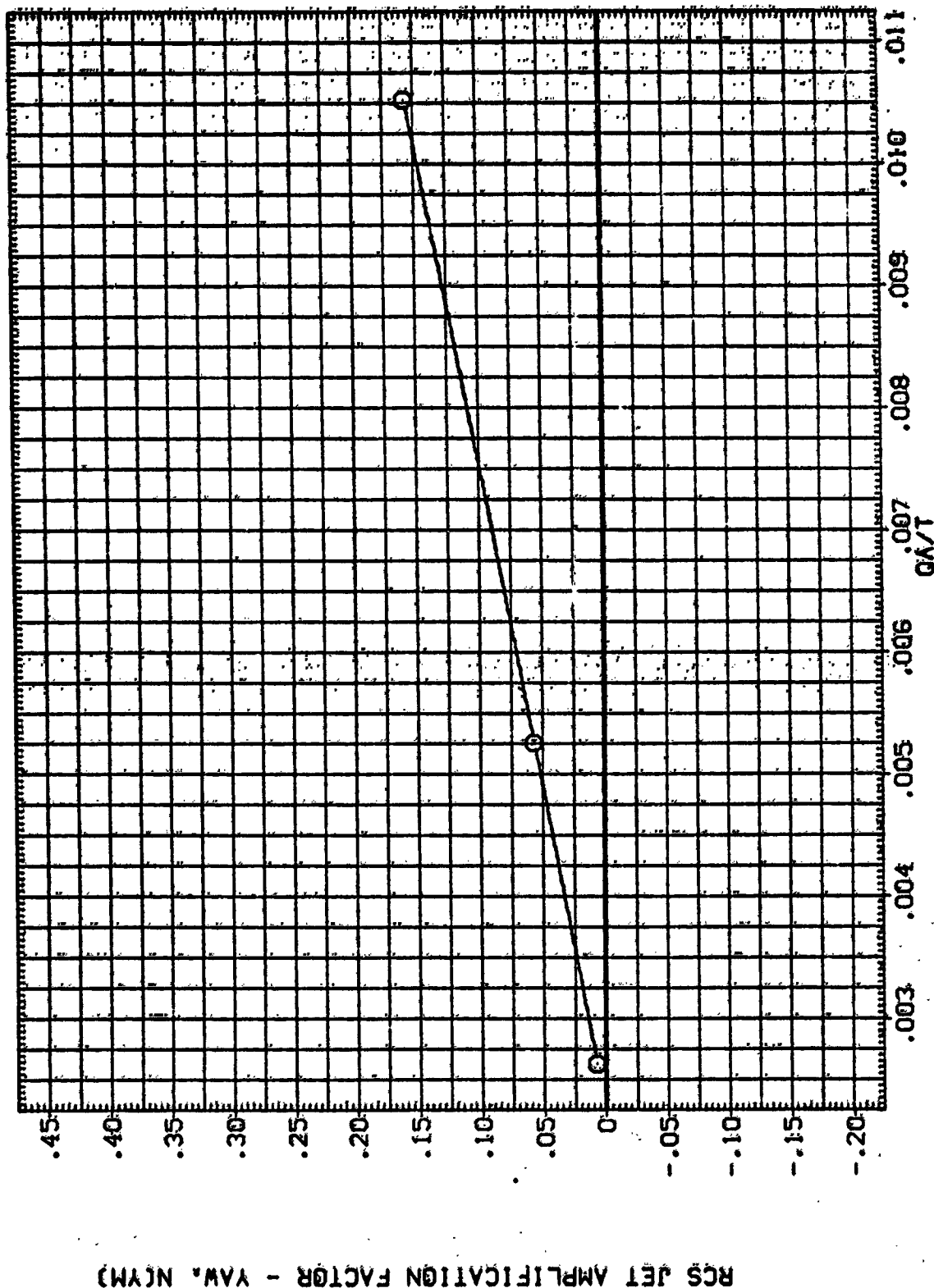
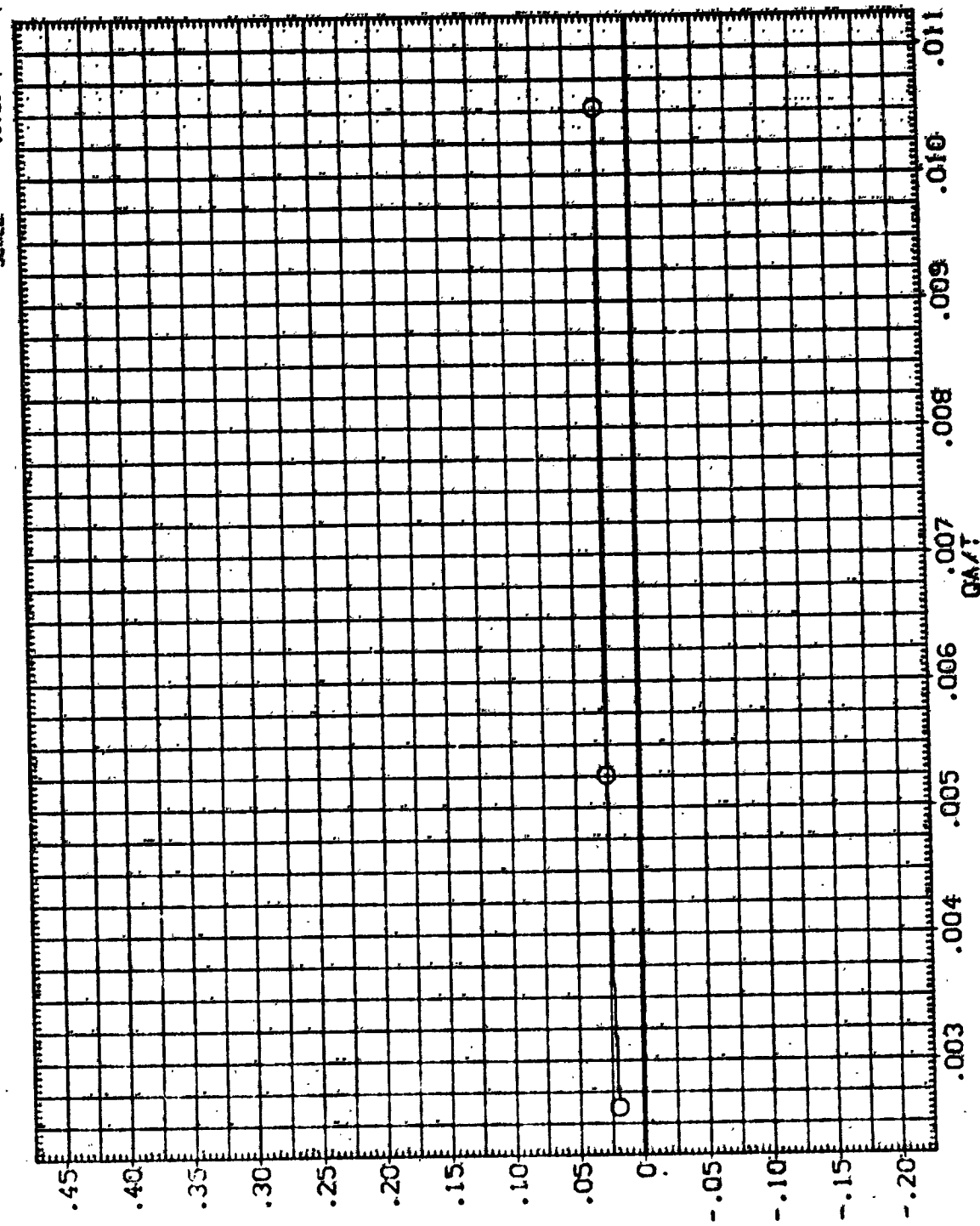


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(CJ)ALPHA = 10.00

DATA SET SYMBOL: 01N79N78
 CONFIGURATION DESCRIPTION: LARC CFMT 110 (NA-22)
 REFERENCE INFORMATION:
 SREF: 2690.0000 SO.FT.
 LREF: 474.8000 INCHES
 BREF: 936.5800 INCHES
 XMRP: 1076.7800 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

ELEVON: .000
 NO. JET: 2.000
 BDFLAP: .000
 BETA: .000



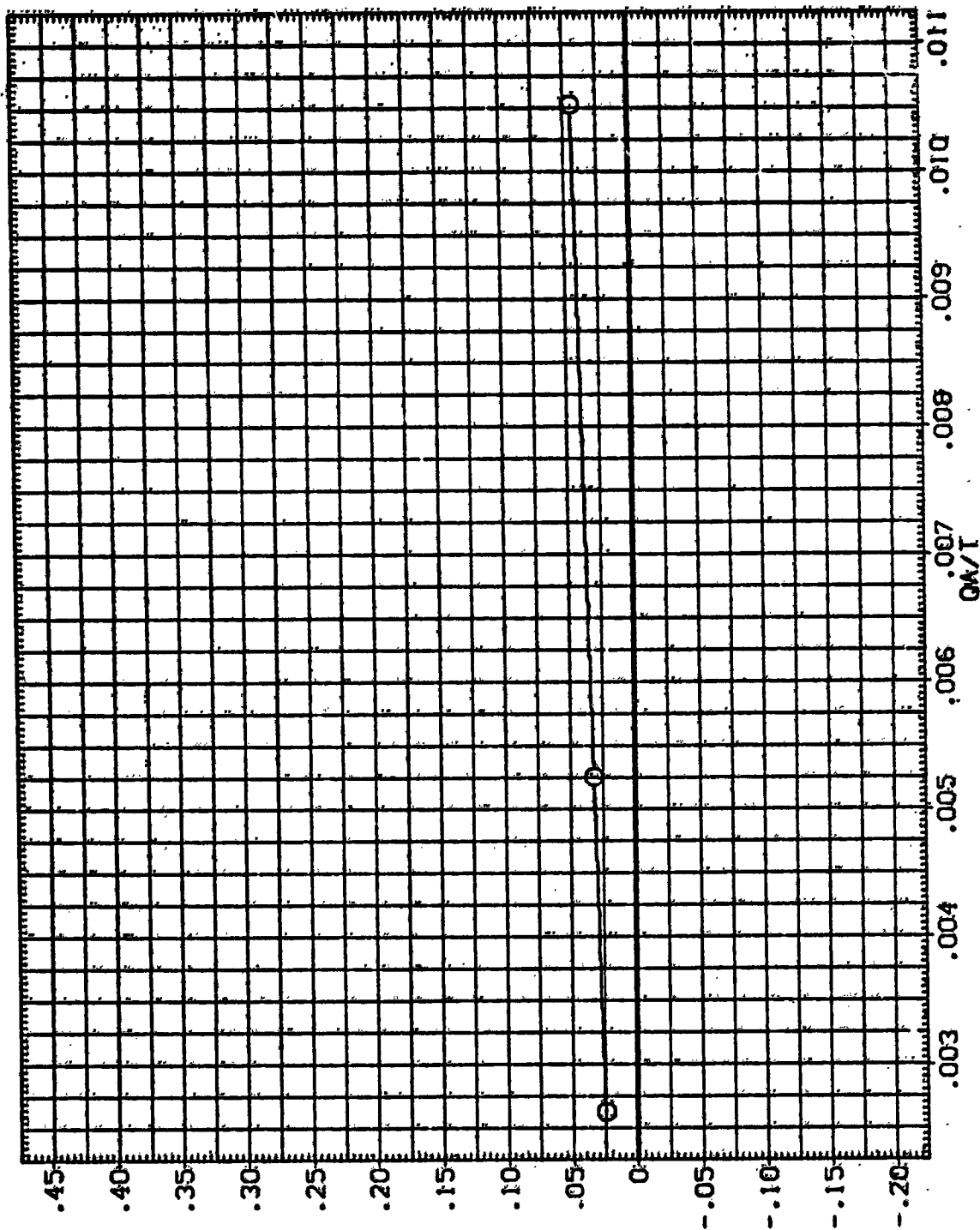
RCS JET AMPLIFICATION FACTOR - YAW, NCM

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(K) ALPHA = 15.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJAC09) O 01N79N78 LARC CFHE 118 (MA-22)

ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION	
.000	2.000	.000	.000	SREF	2690.0000
				LREF	473.8000
				BREF	938.6800
				YREF	1076.7000
				ZREF	.0000
				SCALE	.0100



RCS JET AMPLIFICATION FACTOR - YAW, NCM

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(L) ALPHA = 20.00

REFERENCE INFORMATION

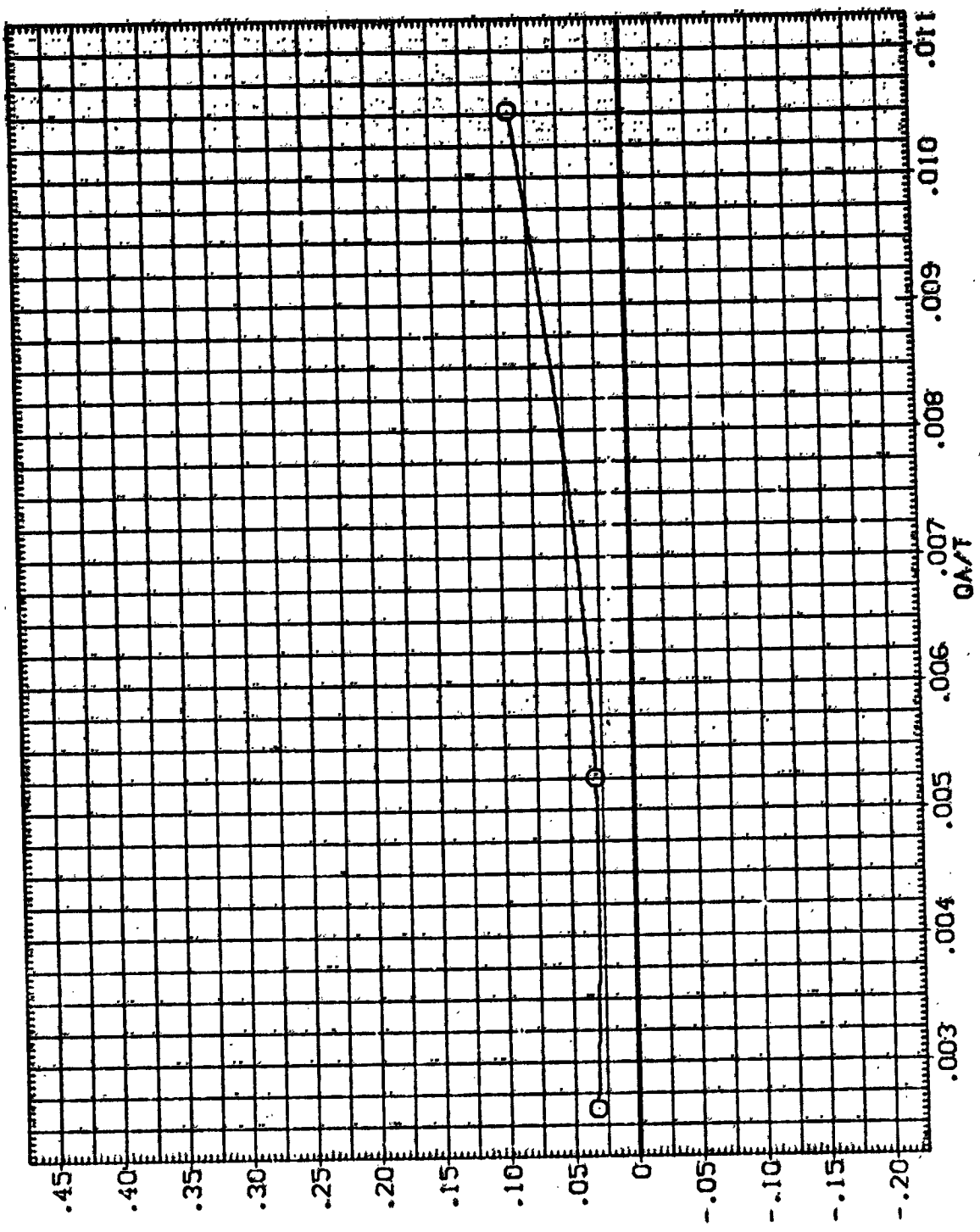
SPEE	2690.0000	50. FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. Y0
YMRP	.0000	IN. Y0
ZMRP	373.8000	IN. Z0
SCALE	.0100	

ELEVON NO. JET BDFLAP BETA

ELEVON	NO. JET	BDFLAP	BETA
.000	2.000	.000	.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(SJA009) O C079N78 LARC CFHT 118 (RA-22)



RCS JET AMPLIFICATION FACTOR - YAW, NCM

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(M)ALPHA = 25.00

DATA SET SYMBOL: O
 (SJA005) QUN79N78 LARC CFMT 118 (MA-22)

ELEVON NO. JET BDF LAP BETA
 .000 2.000 .000 .008

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1876.7000 IN. X0
 YREF .0000 IN. Y0
 ZREF 375.0000 IN. Z0
 SCALE 1.0108

RCS JET AMPLIFICATION FACTOR - YAW, N(YM)

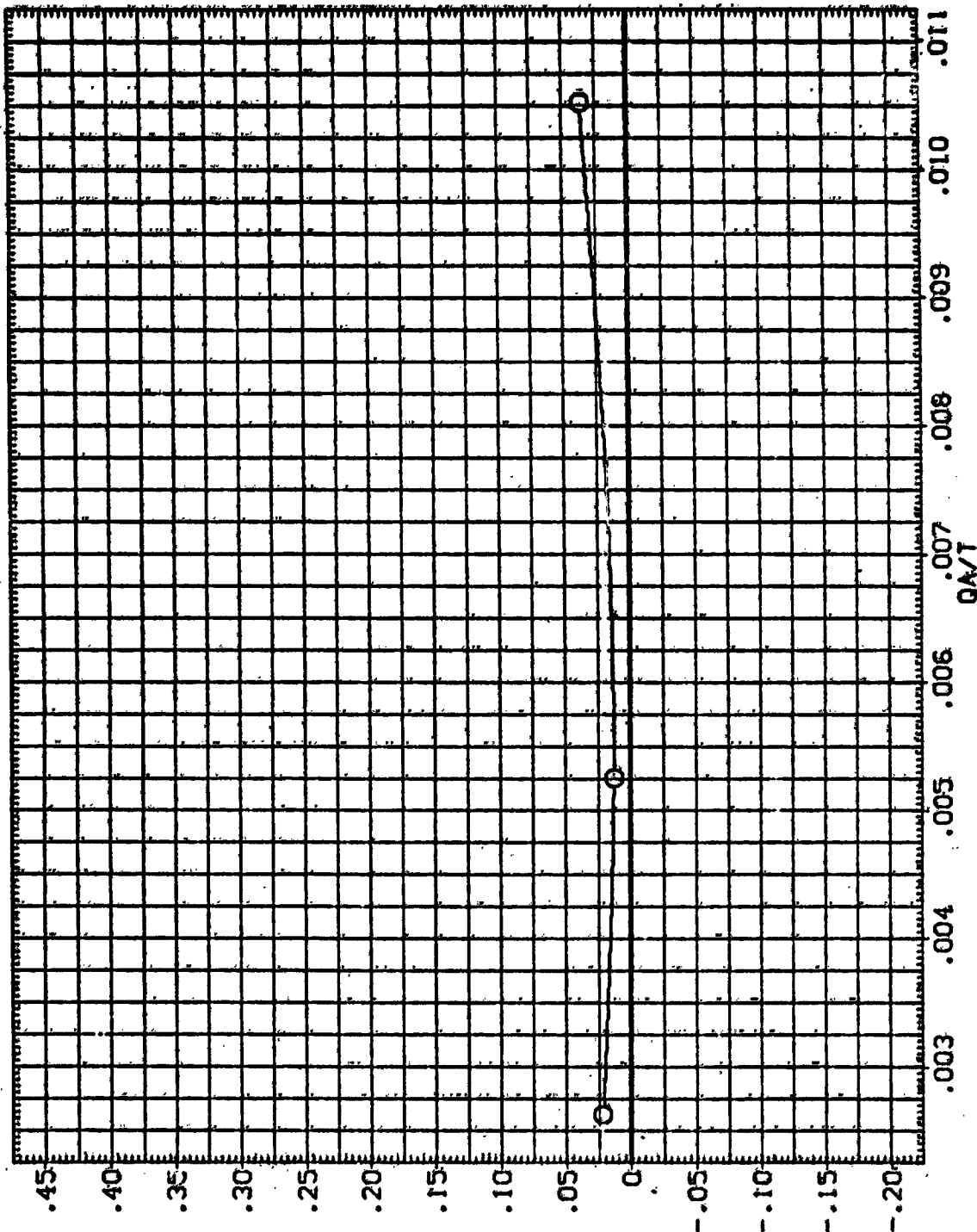


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

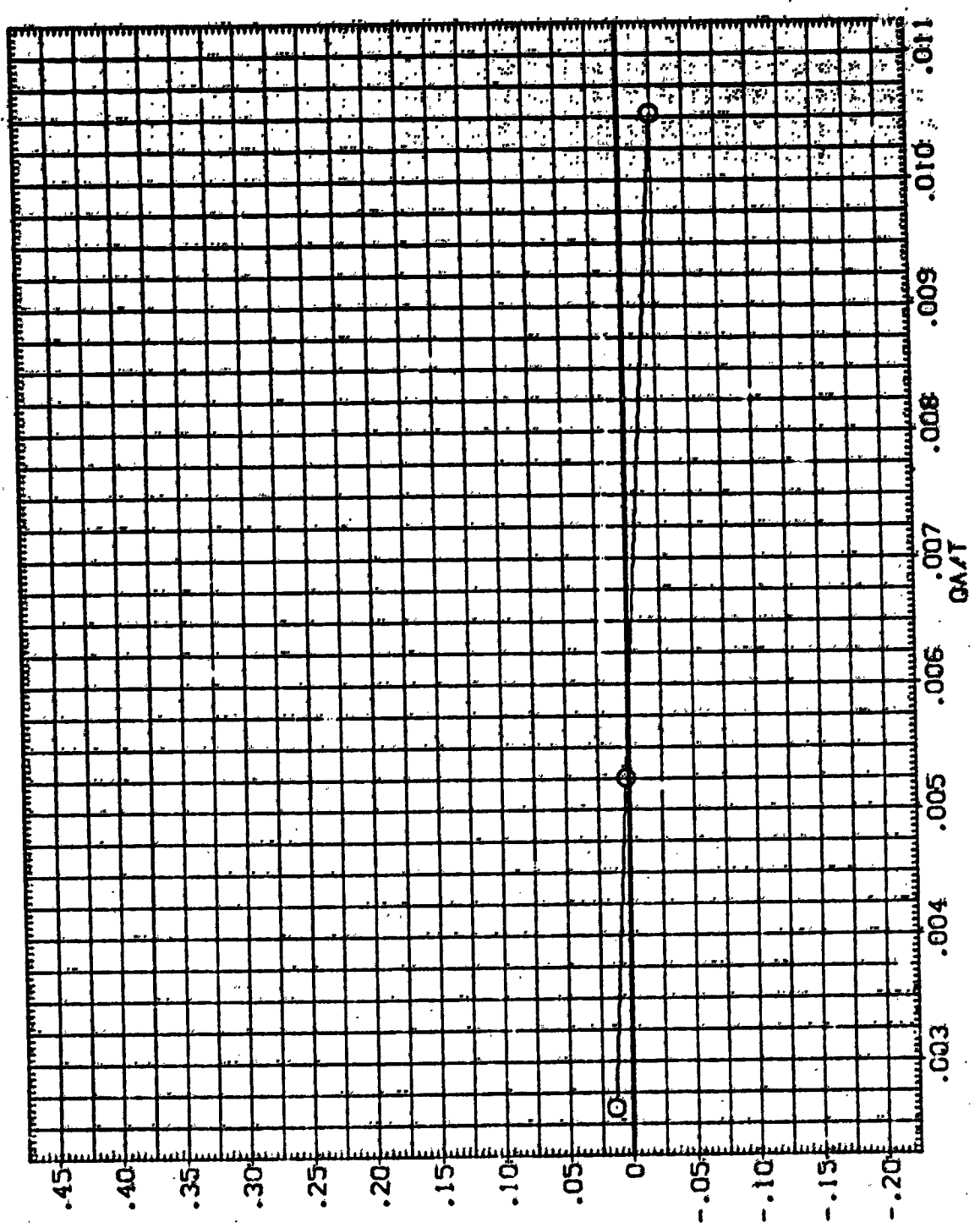
(N)ALPHA = 30.00

DATA SET SYMBOL (SJA009) \bigcirc Q1N79N78 LARC CENT 118 (NA-22)

ELEVON NO. JET 2.000
ELEVON .000

BOFLAP .000
BETA .000

REFERENCE INFORMATION
SREF 2630.0000 SO. FT.
LREF 474.8000 INCHES
BREF 926.6800 INCHES
XREF 1076.7000 IN. X0
YREF .0000 IN. Y0
ZREF 375.0000 IN. Z0
SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, N(YM)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(C)ALPHA = 35.00

DATA SET SYMBOL: 01N79N78 LARC CFHT 110 (MA-22)

ELEVON: .008 NO. JET: 2.000 BOFLAP: .000 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 INCHES
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XREF: 1076.7000 INCHES
 YREF: .0000 INCHES
 ZREF: 375.0000 INCHES
 SCALE: .0100

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

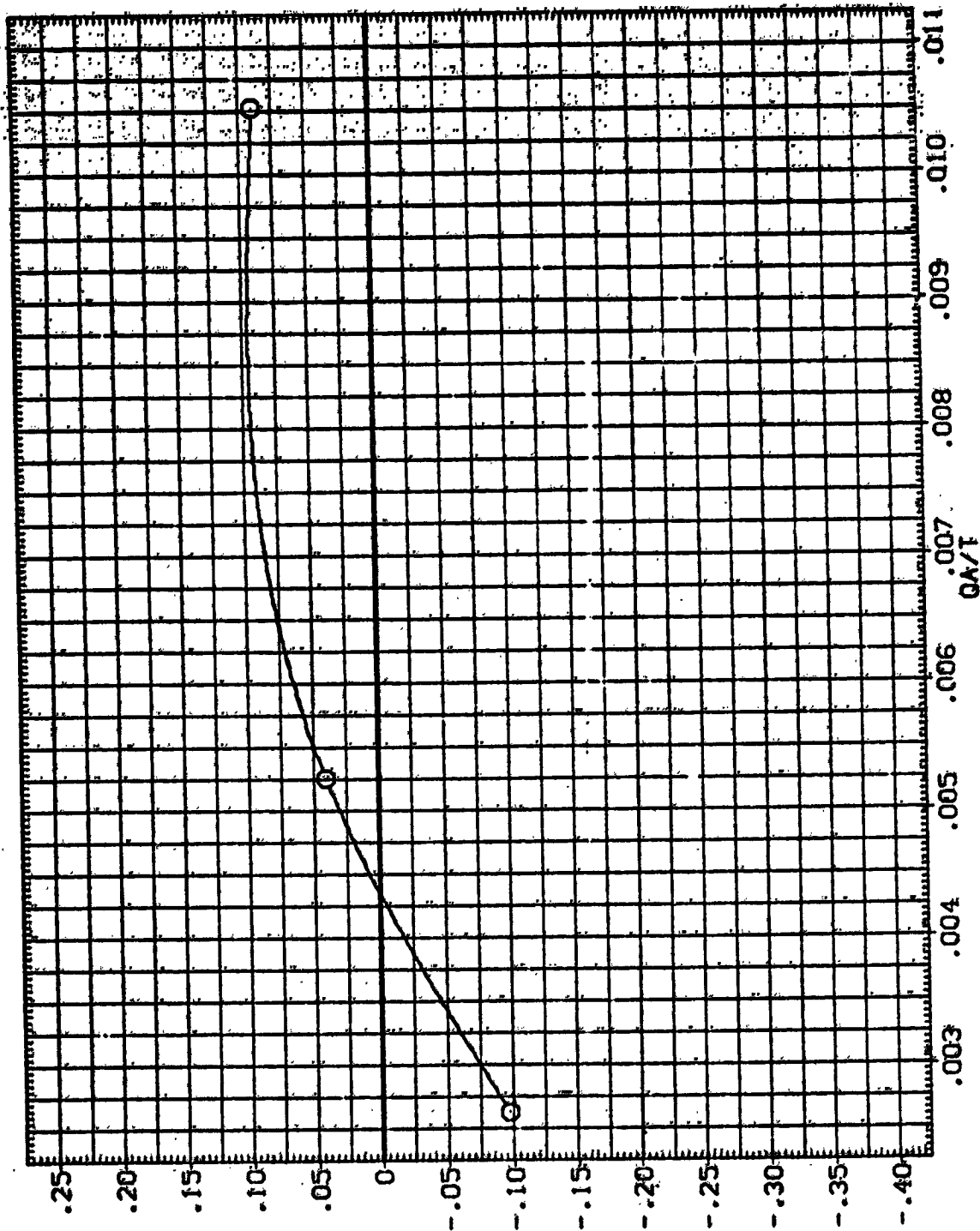


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

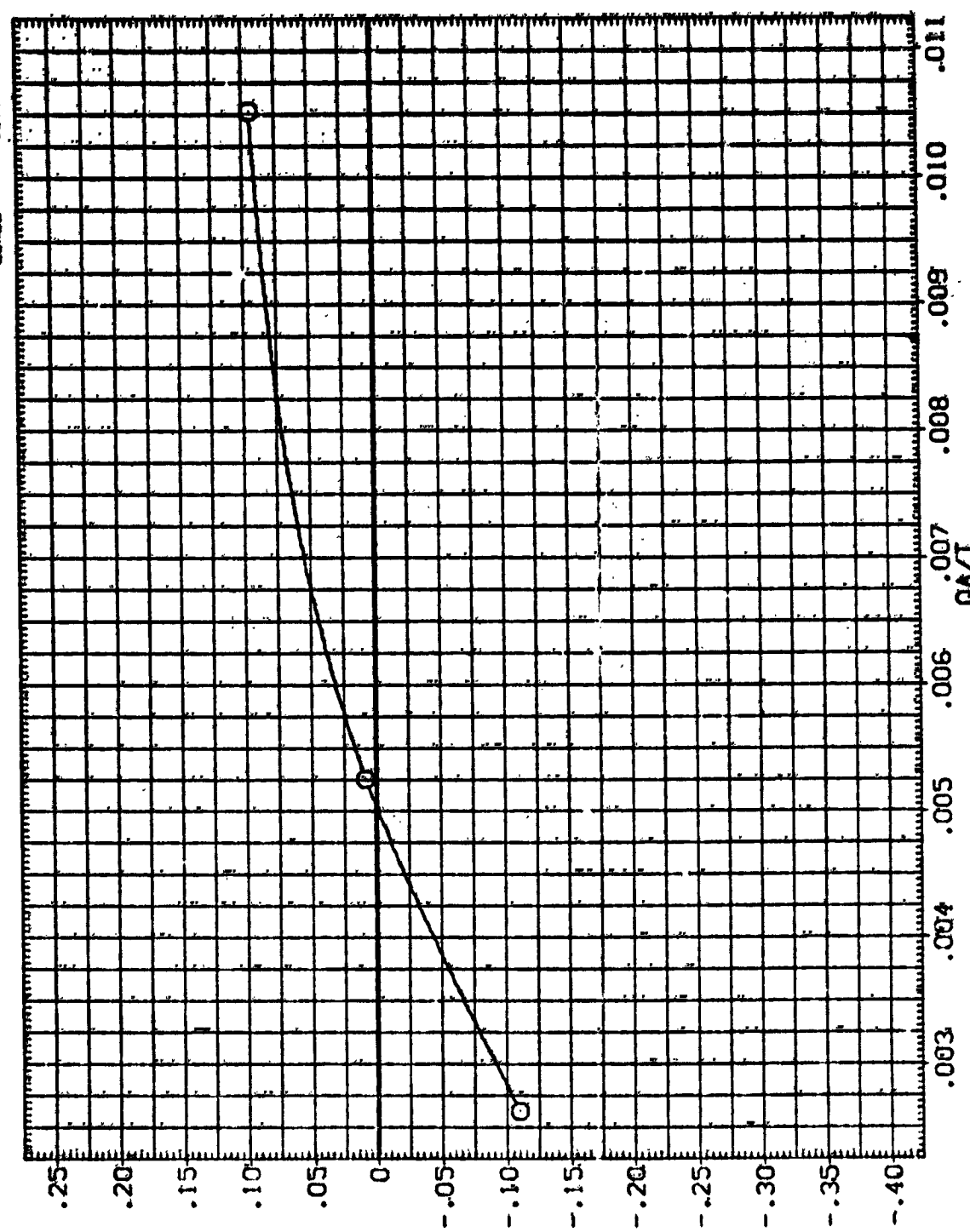
(α) ALPHA = -8.00

DATA SET SYMBOL (S)AC09) O QIN79N78 LARC CFMT 118 (MA-221)

ELEVON NO. JET 80FLAP BETA .000 .000 .000

REFERENCE INFORMATION

SRF	%	SO. FT.
SRF	690.0000	SO. FT.
LREF	474.8000	INCHES
SRF	936.6800	INCHES
SRF	1076.7000	IN. 10
SRF	375.0000	IN. 10
SRF	375.0000	IN. 20
SCALE	.0100	



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, (NSF)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(B)ALPHA = -6.00

DATA SET SYMBOL (SJA009) \bigcirc CONFIGURATION DESCRIPTION 01N79N78 LARC CFMF 118 (NA-22)

ELEVON .000 NO JET 2.000 BETA .000
 REFERENCE INFORMATION
 SREF 2650.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. X0
 YREF .0000 IN. Y0
 ZREF 375.0000 IN. Z0
 SCALE .0100

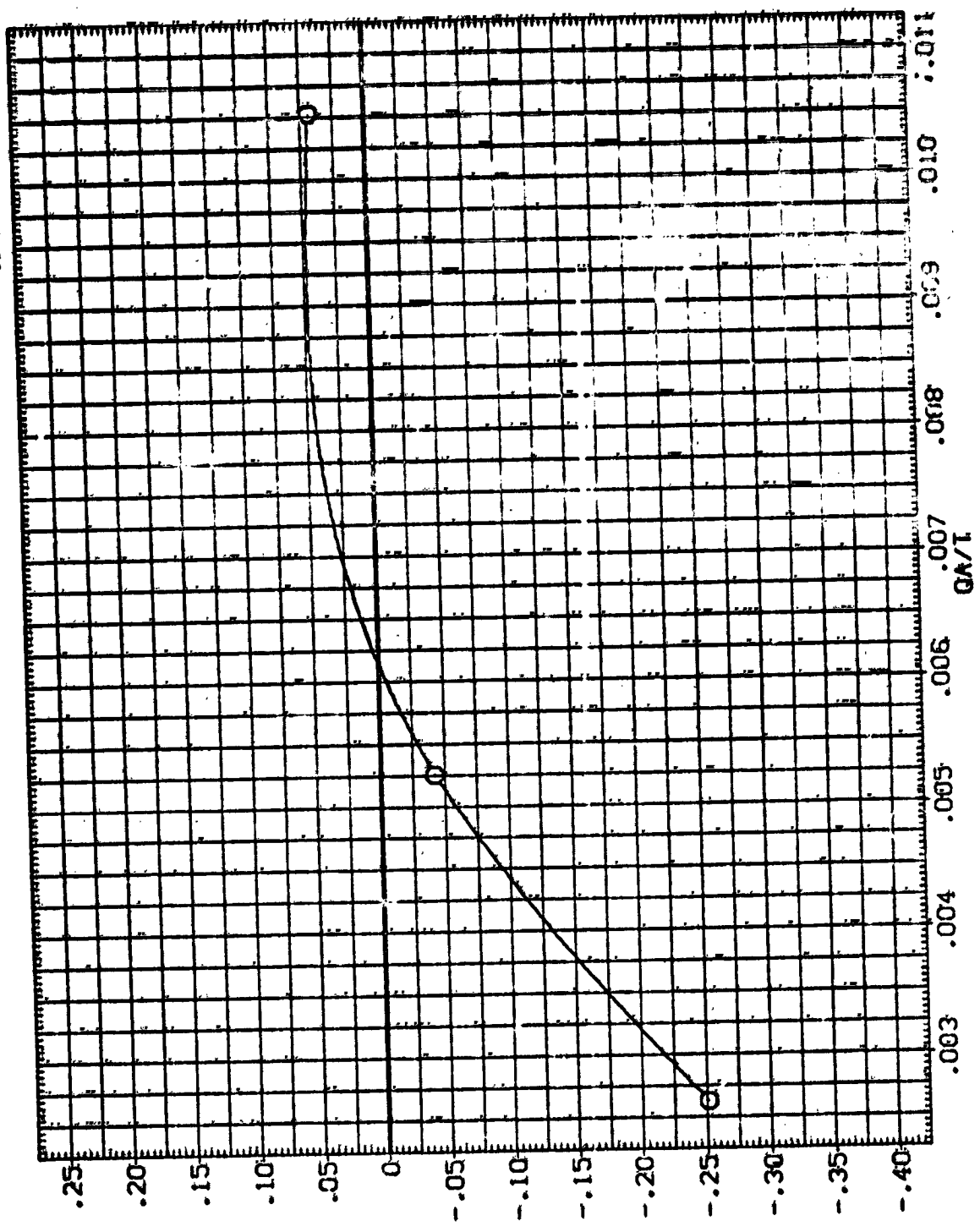


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(C)ALPHA = -4.00

DATA SET SYMBOL Q QIN79N78 LARC CFHT 118 (PA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

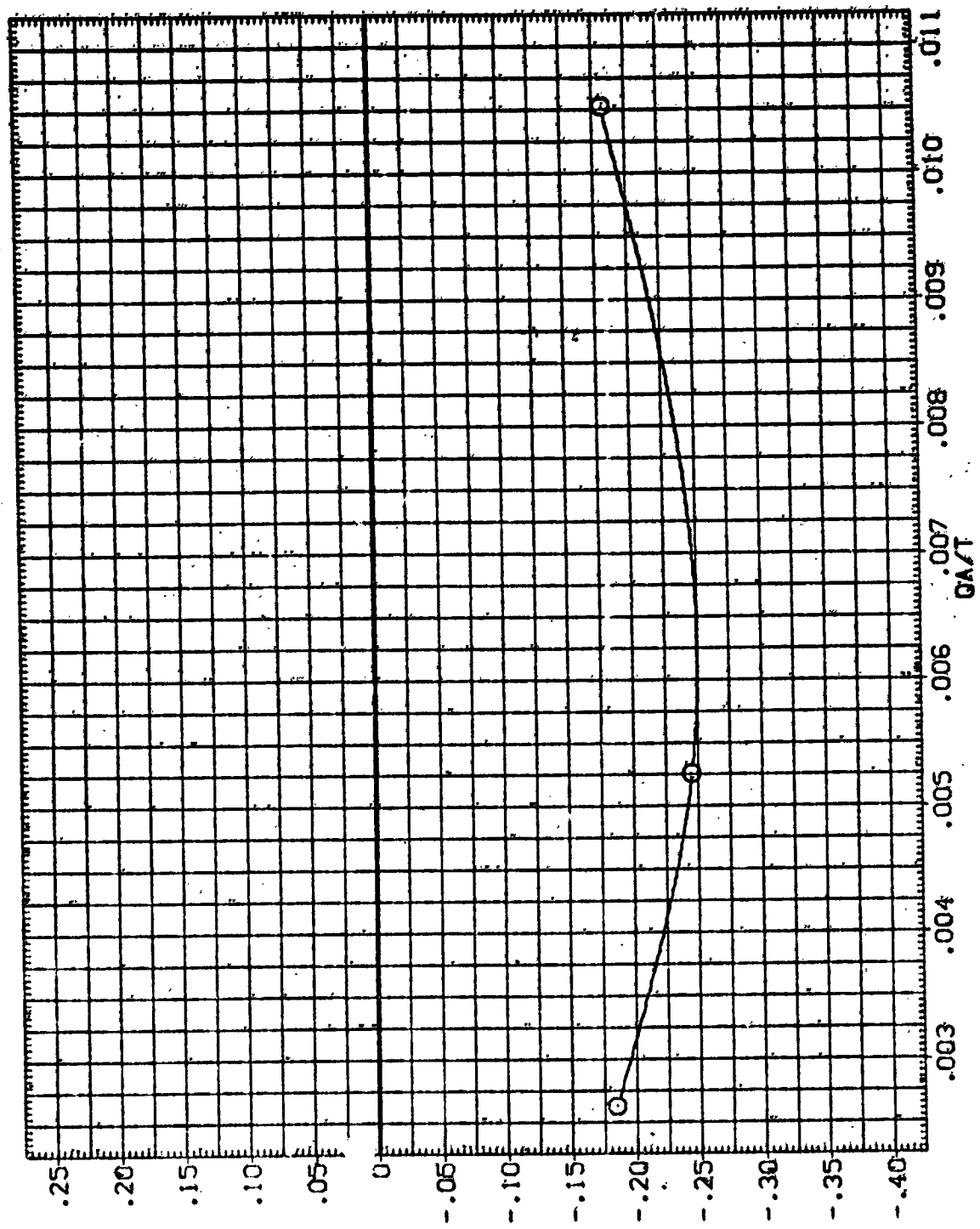


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(OTALPHA = -2.00

DATA SET SYMBOL (SIAD03) ☐ Q1W79N78 LARC CFHT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BDFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2590.6700 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. 10
 YMRP .0800 IN. 10
 ZMRP 373.0900 IN. 20
 SCALE .0100

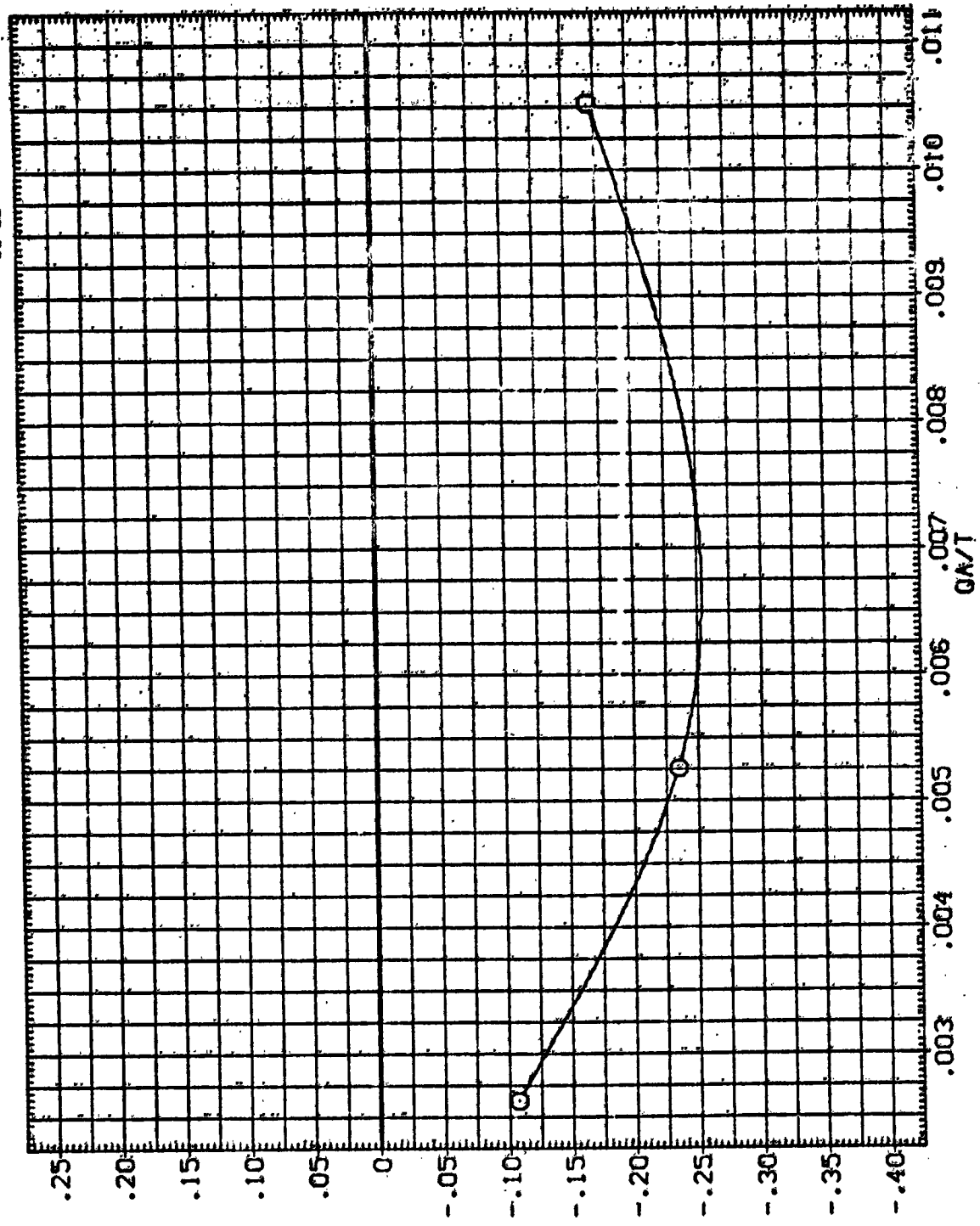


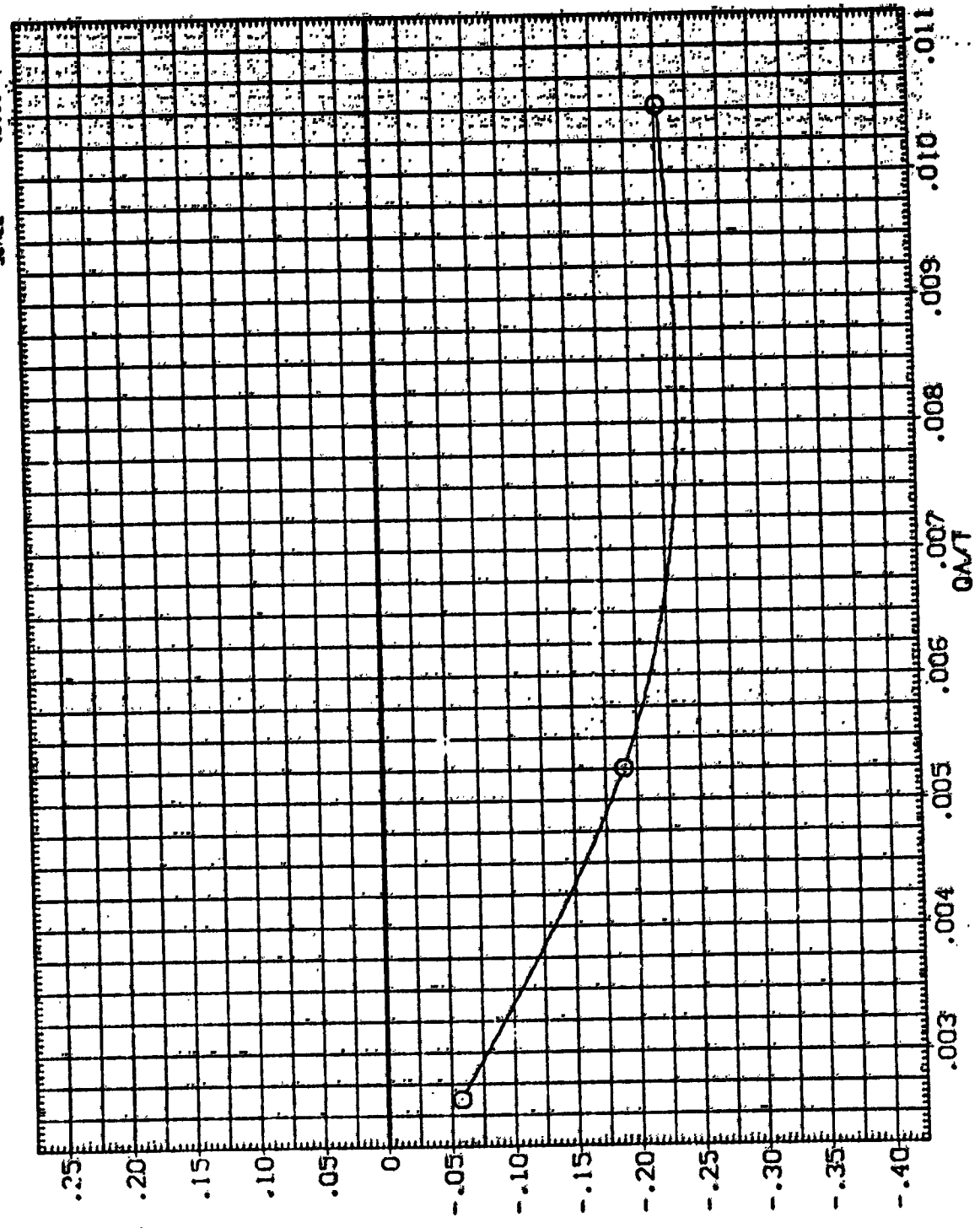
FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(E)ALPHA = .00

DATA SET SYMBOL: (SJM003) \odot CONFIGURATION DESCRIPTION: 01N79N78 LARC CFHT 118 (MA-22)

ELEVON: .000 NO. JET: 2.000 BDFLAP: .000 BETA: .000

REFERENCE INFORMATION:
 SREF: 2650.0650 50 FT.
 LREF: 474.8000 INCHES
 BREF: 936.6000 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: 375.0000 IN. Y0
 ZMRP: .0100 IN. Z0
 SCALE: .0100



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(F) ALPHA = 2.00

DATA SET SYMBOL: 01N79N78
 CONFIGURATION DESCRIPTION: LARC CFH# 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 536.6800 INCHES
 XMRP: 1076.7000 IN. 40
 YMRP: .0000 IN. 40
 ZMRP: 375.0000 IN. 20
 SCALE: .0100

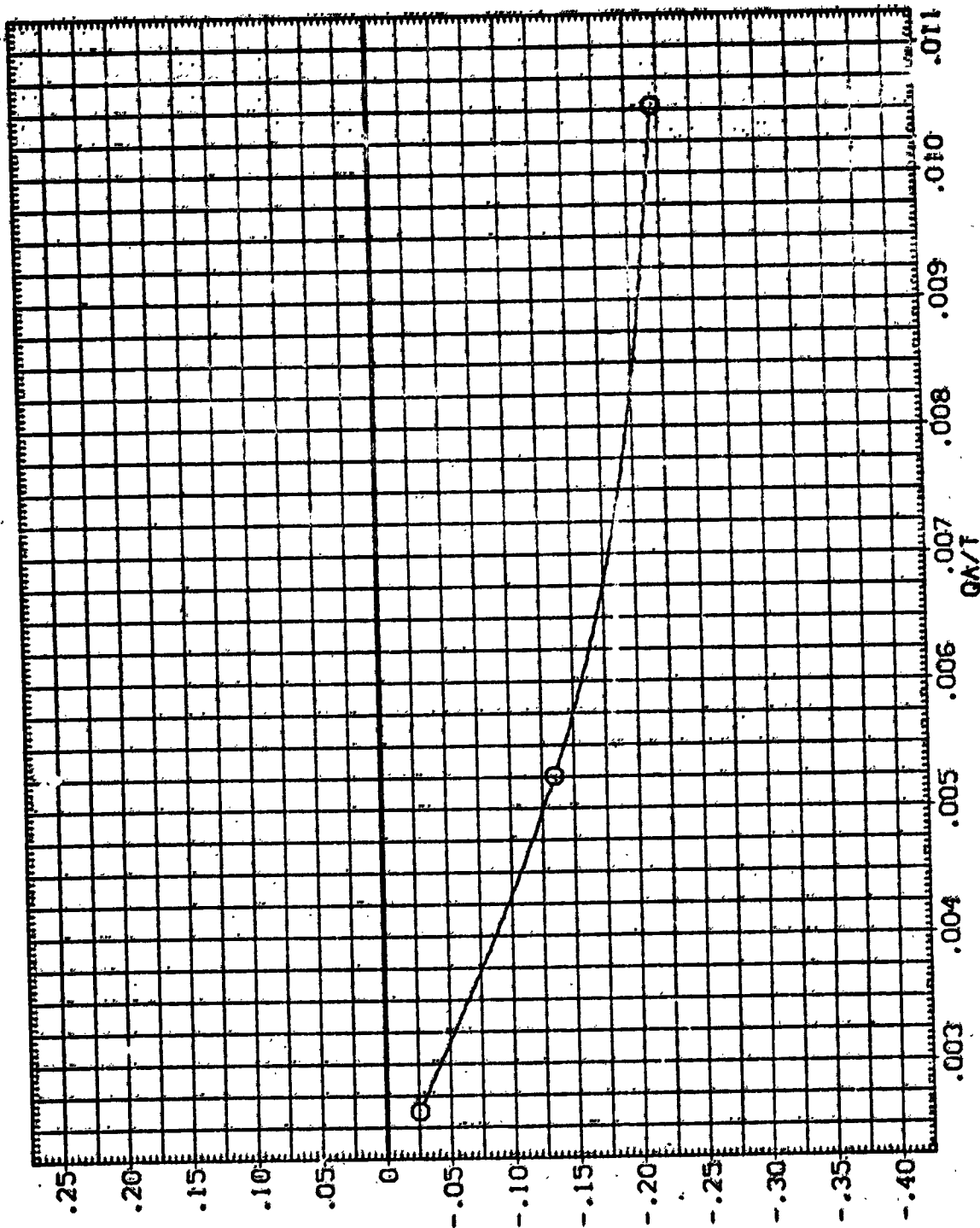
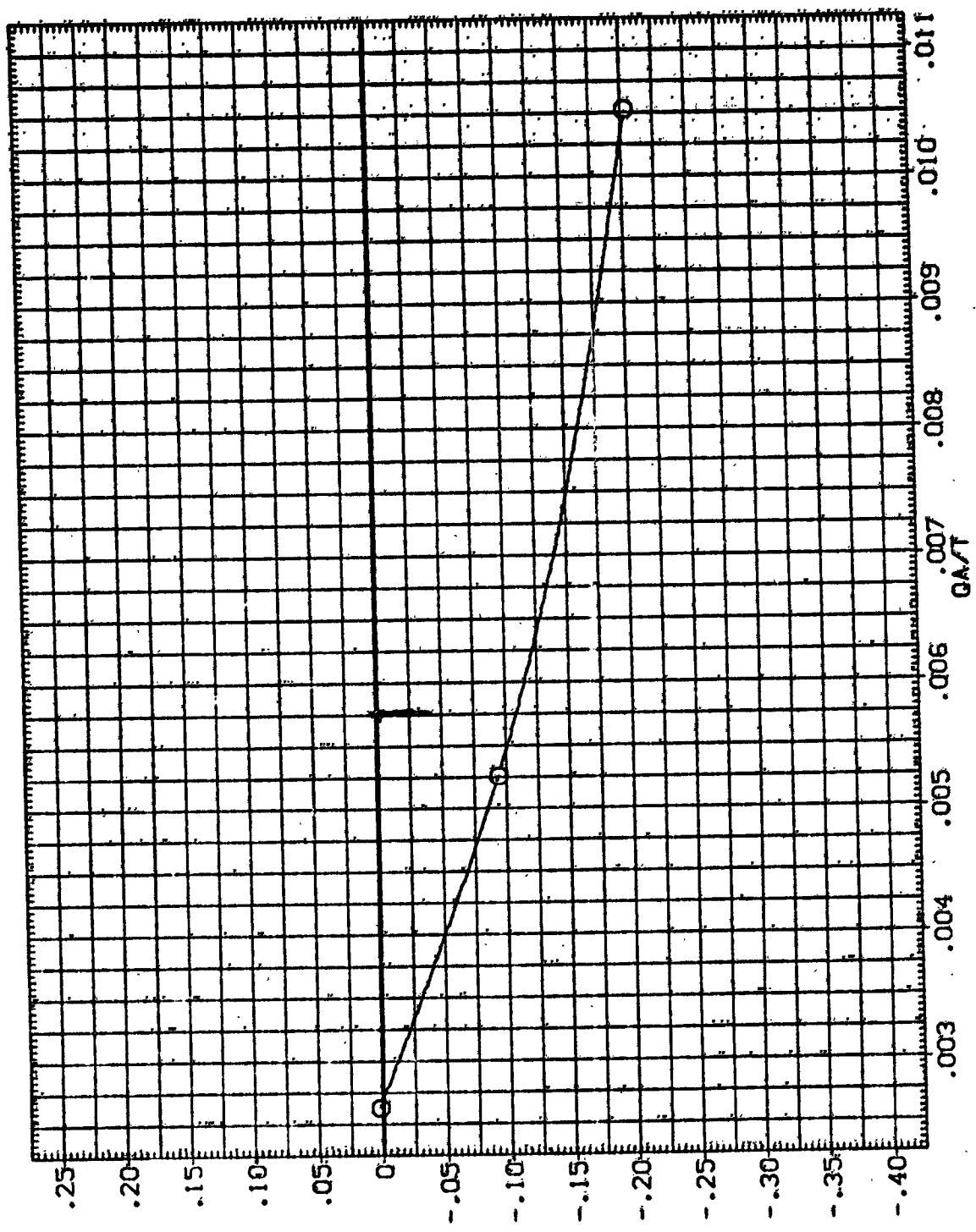


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(G)ALPHA = 4.00

DATA SET SYMBOL: 01179N78
 CONFIGURATION DESCRIPTION: LARC CFT 118 8MA-221
 REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.2000 IN. X0
 YMRP: 8000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: 0.000

ELEVON: .000
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000



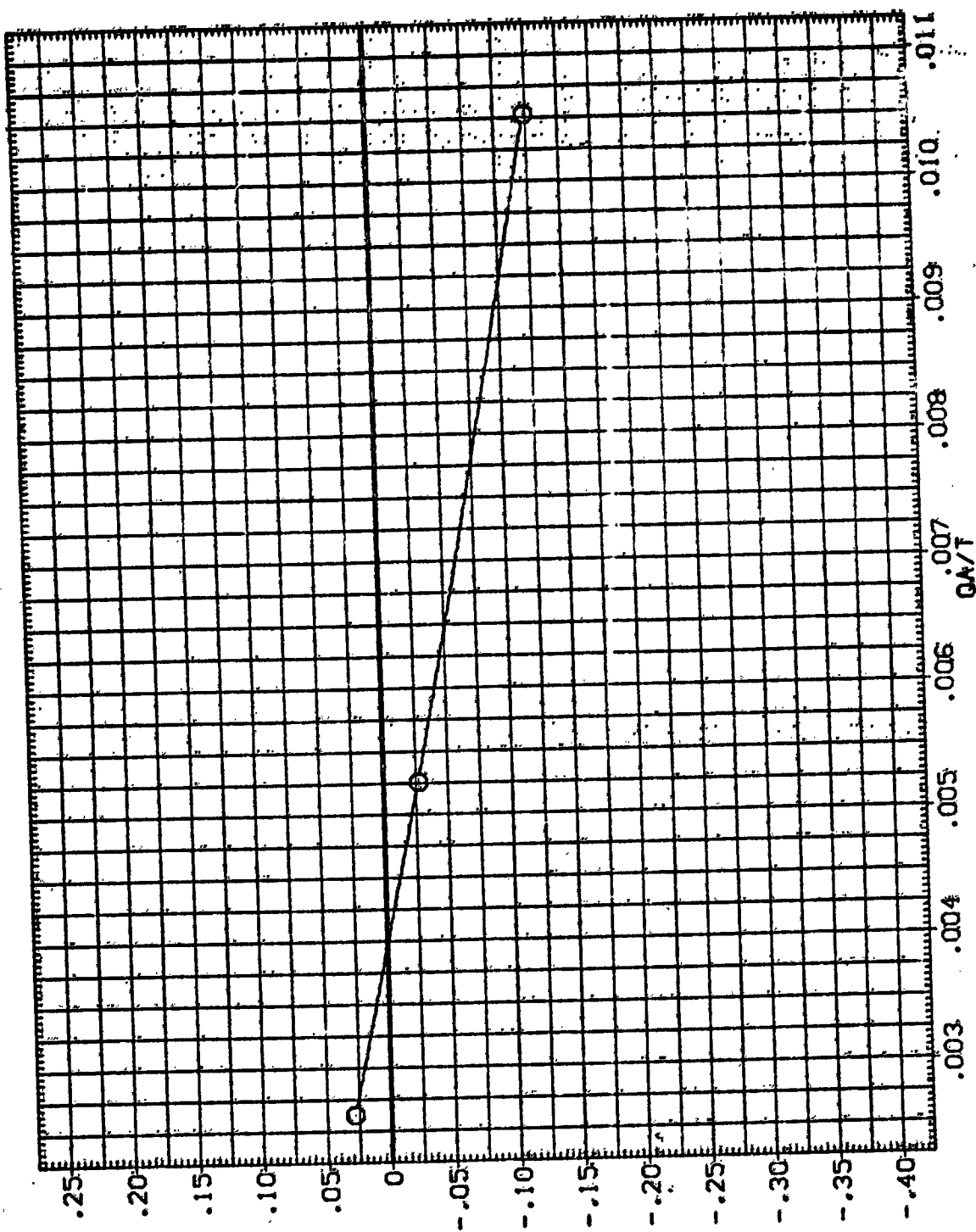
RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NCSF

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(H)ALPHA = 6.00

DATA SET SYMBOL (SJ0009) O CONFIGURATION DESCRIPTION 01N79N78 LARC CFHT 118 (HA-22)

ELEVON .000 NO JET 2.000 BOFLAP .000 BETA .000
 REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XPRP 1076.7000 IN. X
 YPRP .0000 IN. Y
 ZPRP 375.0000 IN. Z
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

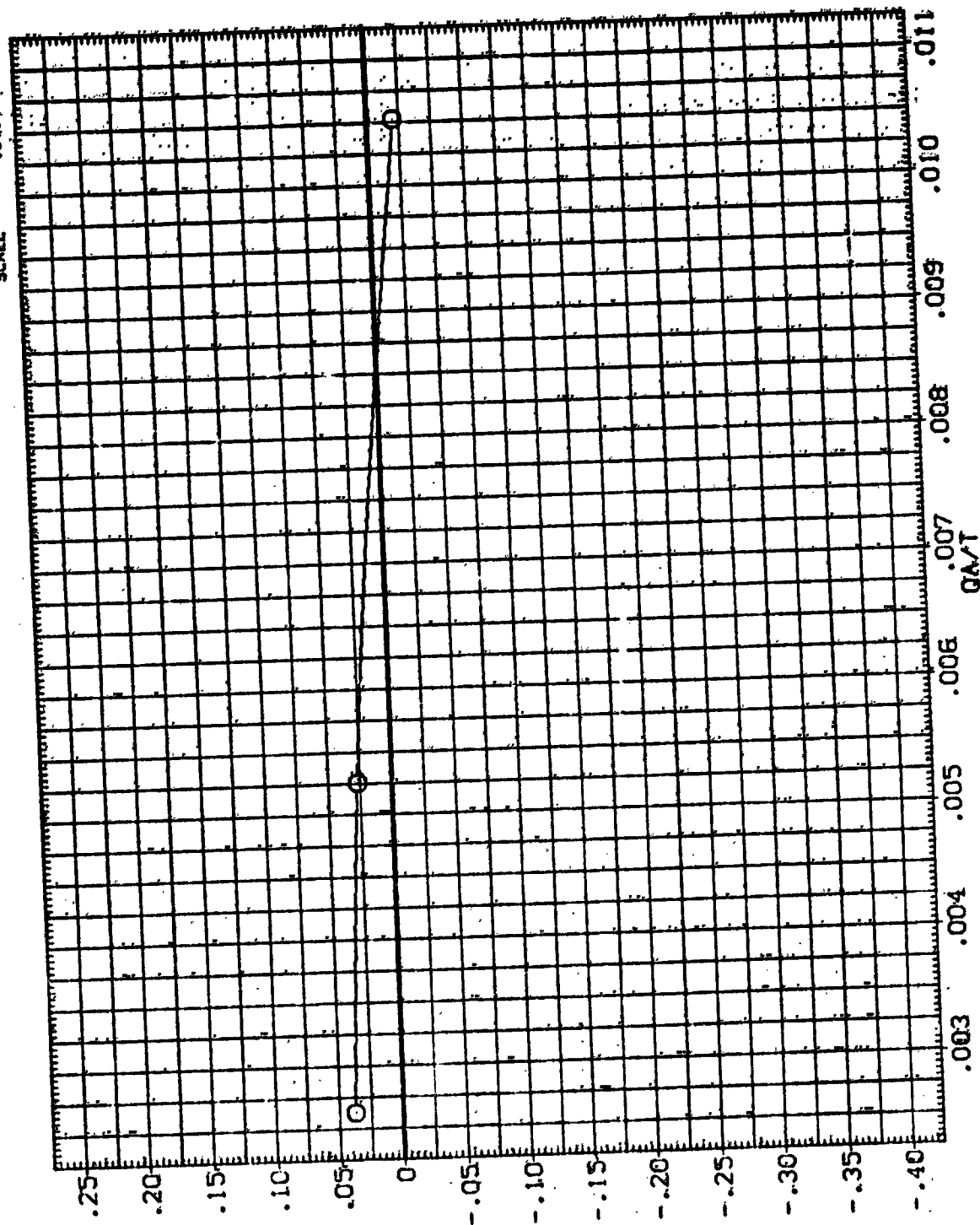
(1) ALPHA = 8.00

REFERENCE INFORMATION

SREF	2690.0000	SO. FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	375.0000	IN. Z0
SCALE	.0100	

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000

DATA SET SYMBOL 01N79N78 LARC CFT 118 (MA-22)



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NCSF

FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(J)ALPHA = 10.00

DATA SET SYMBOL (SJA009) ○ 01A79N78 LARC CFHT 118 CMA-22

ELEVON .080 NO. JET 2.000 BDFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8800 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. XG
 YMRP .0000 IN. YG
 ZMRP 375.0000 IN. ZG
 SCALE .0100

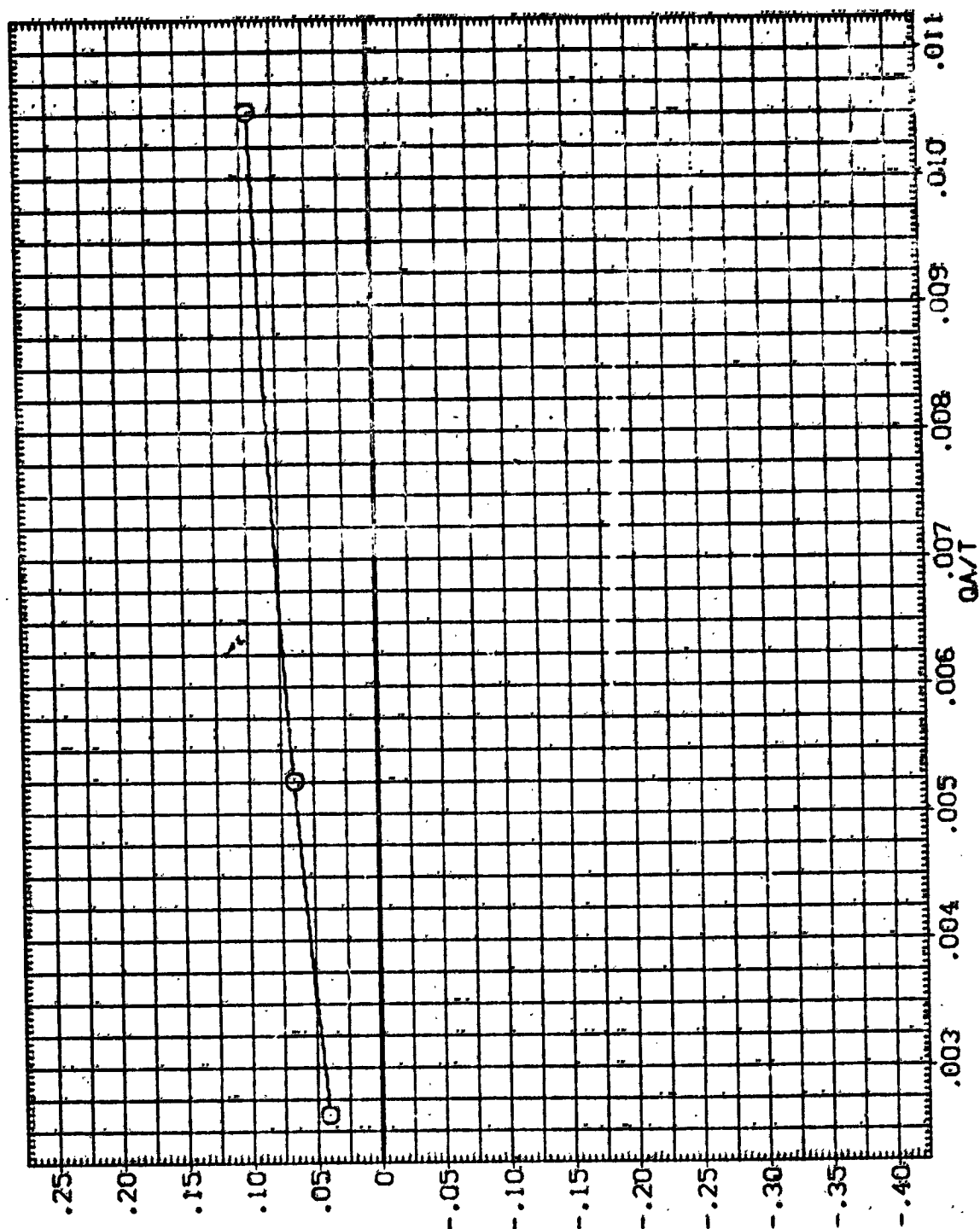


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(K)ALPHA = 15.00

DATA SET SYMBOL	Q	QIN79N78	CONFIGURATION DESCRIPTION	LARC CFHT 118 (NA-22)
(SJA009)				
ELEVON	.000	NO-JET	BOFLAP	BETA
		2.000	.000	.000
REFERENCE INFORMATION				
SREF	2690.0000	50.FT.		
LREF	424.8000	INCHES		
BREF	926.6800	INCHES		
XRRP	1076.7000	IN. 10		
YRRP	.0000	IN. 10		
ZRRP	375.0000	IN. 20		
SCALE	.0100			

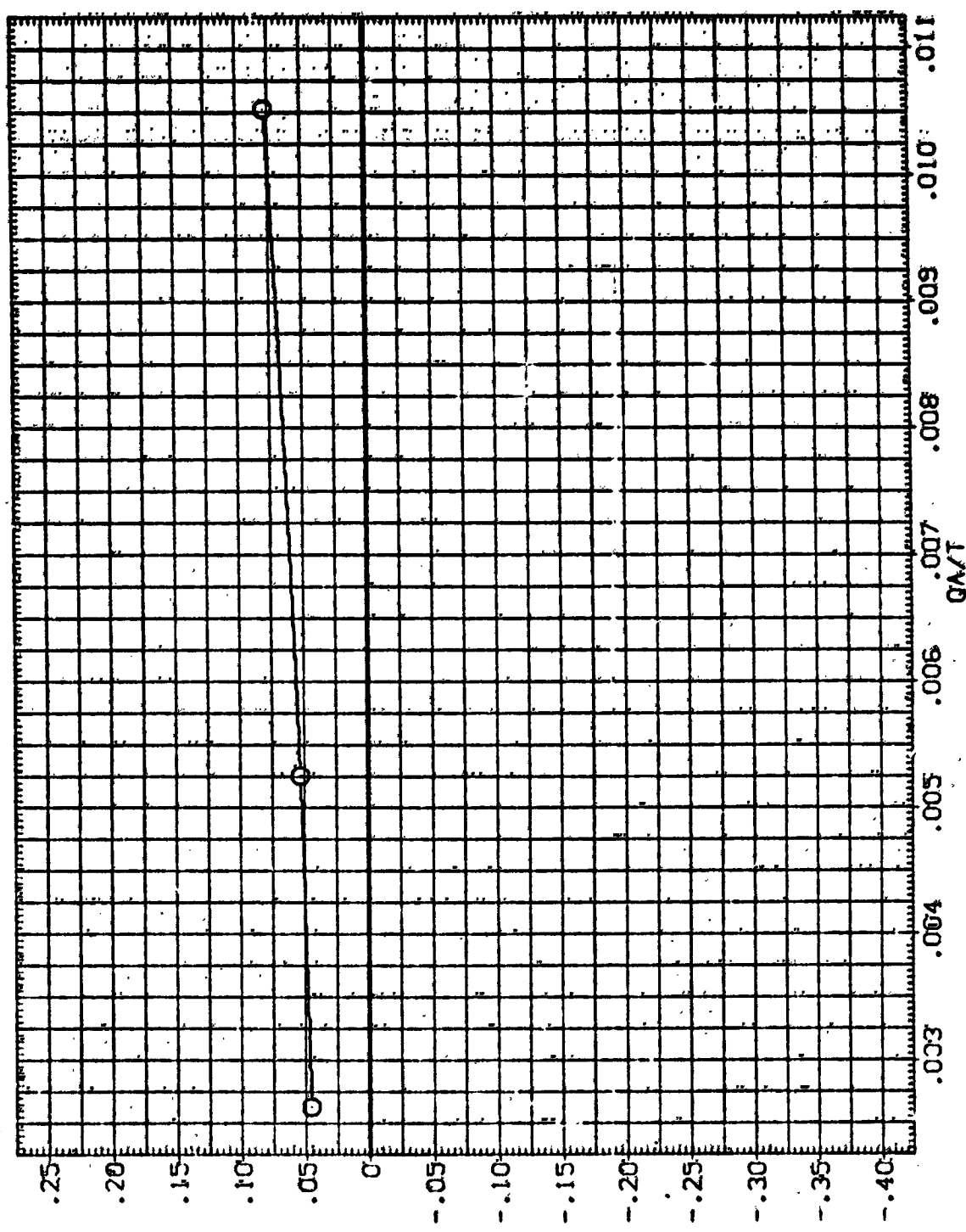


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(L) ALPHA = 20.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJ7009) O 01N79N28 LANC CFHI 118 (MA-22)

ELEVON .000 NO-JET 2.000 80FLAP .080 BETA .000
REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XRRP 1076.7000 IN. XG
YRRP .0000 IN. YG
ZRRP 373.0000 IN. ZG
SCALE .0100

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

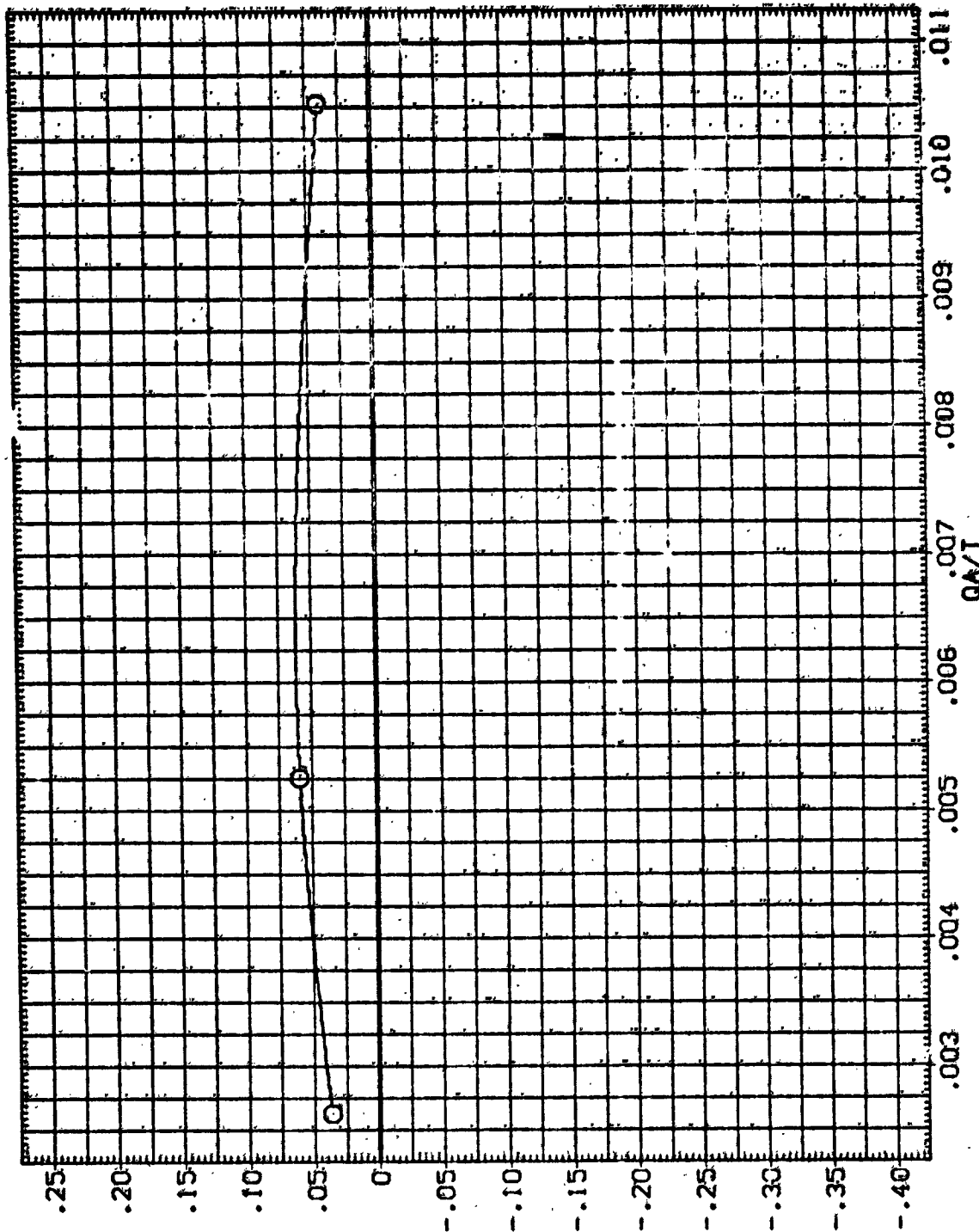


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(M)ALPHA = 25.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA008) ○ 01N79N78 LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
.080 2.000 .000 .000

REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XREF 1076.7000 IN. 10
YREF 375.0000 IN. 10
ZREF 375.0000 IN. 20
SCALE .0100

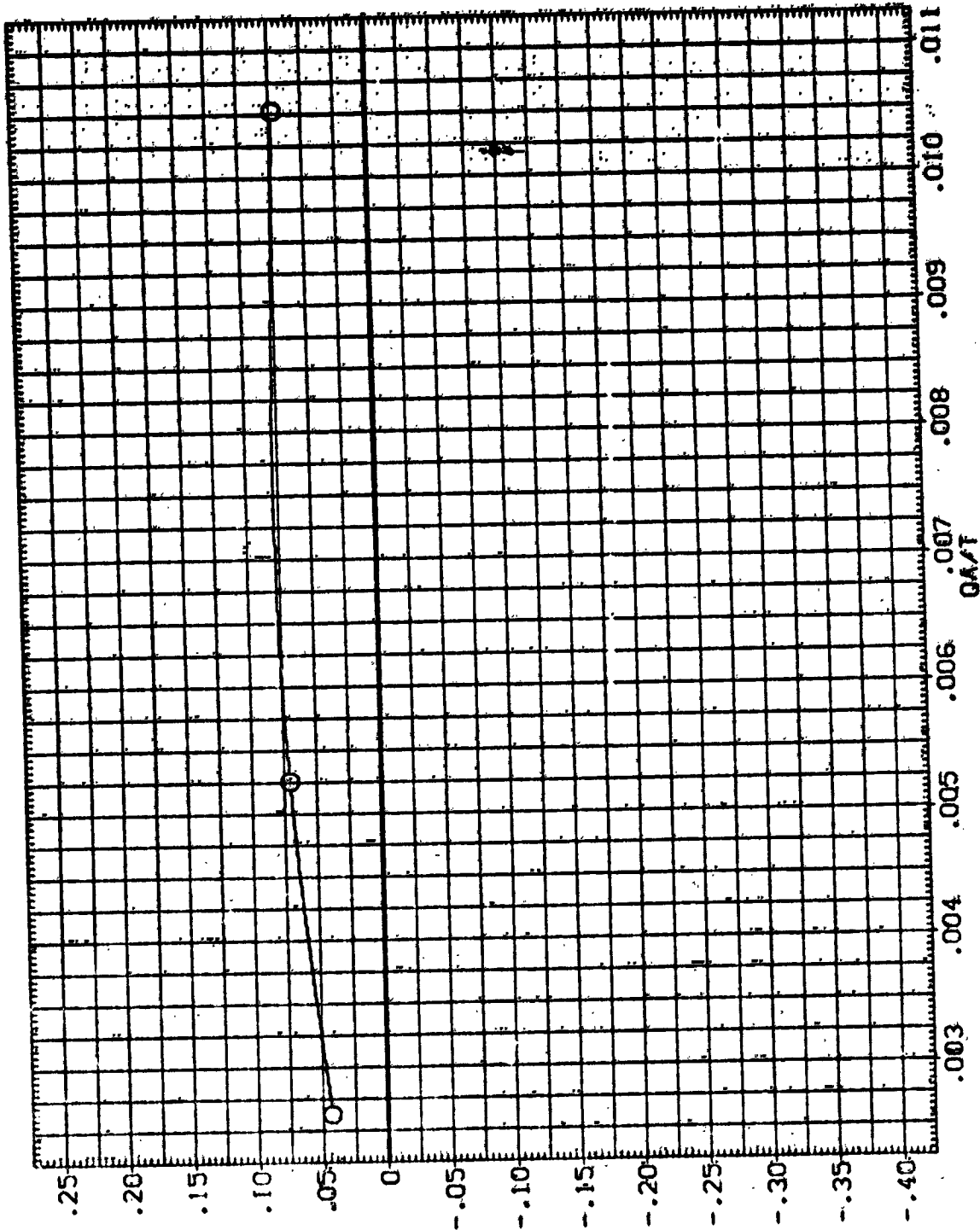


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(N)ALPHA = 30.00

DATA SET SYMBOL: 01N79N78 LARC CFHT 118 CHA-221

ELEVON: .000 NO. JET: 2.000 30FLAP: .000 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XGRP: 1076.7000 IN. 40
 YGRP: .0000 IN. 40
 ZGRP: 375.0000 IN. 20
 SCALE: .0100

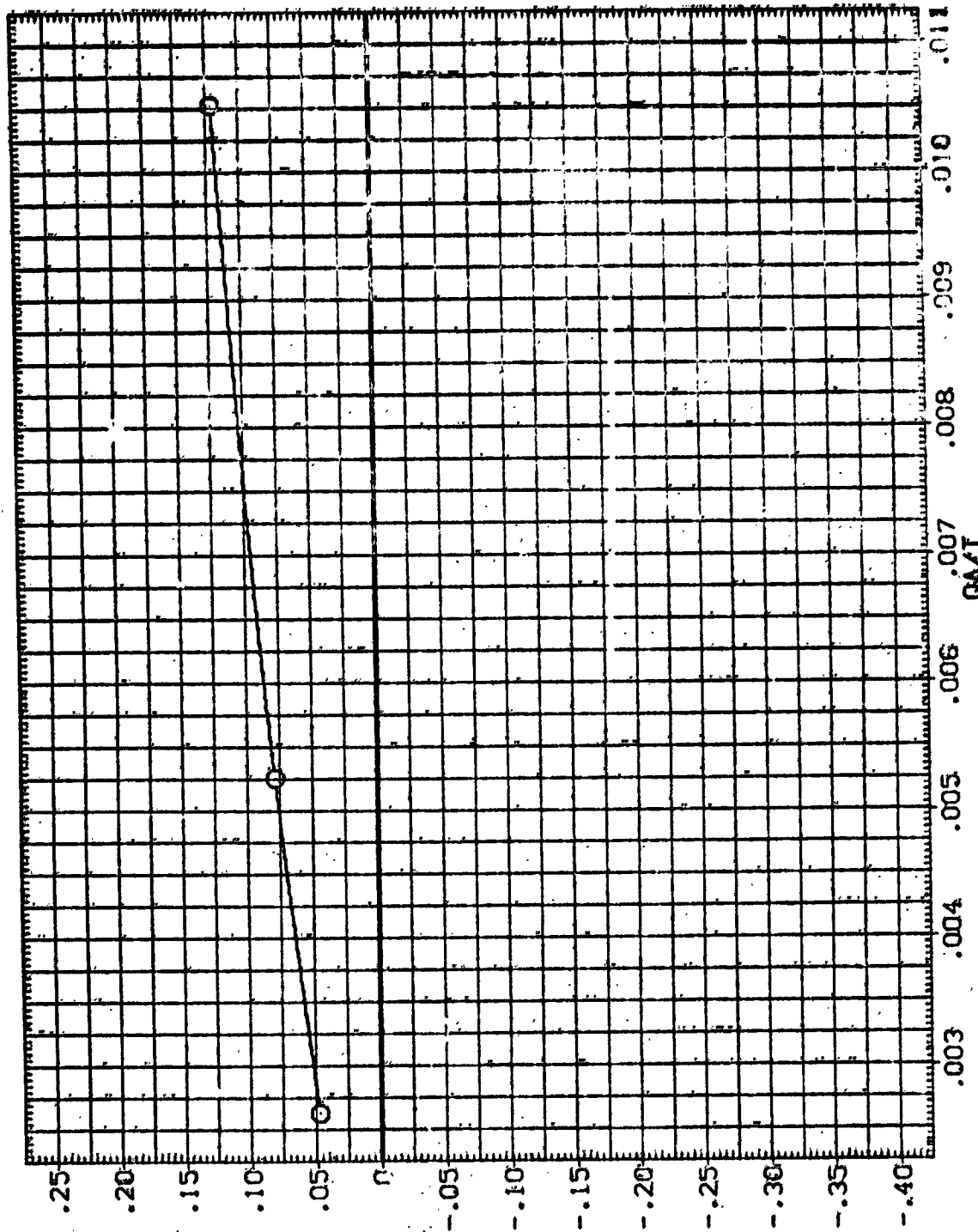


FIGURE 28. AMPLIFICATION FACTORS FOR JETS N79N78

(O) ALPHA = 35.00

DATA SET SYMBOL (S1A010) \bigcirc CONFIGURATION DESCRIPTION CIRCENSE LARG CFM1 118 (MA-22)

ELEVON .000 NO JET 2.000 BORLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. XG
 YREF .0000 IN. YG
 ZREF 375.0000 IN. ZG
 SCALE .0100

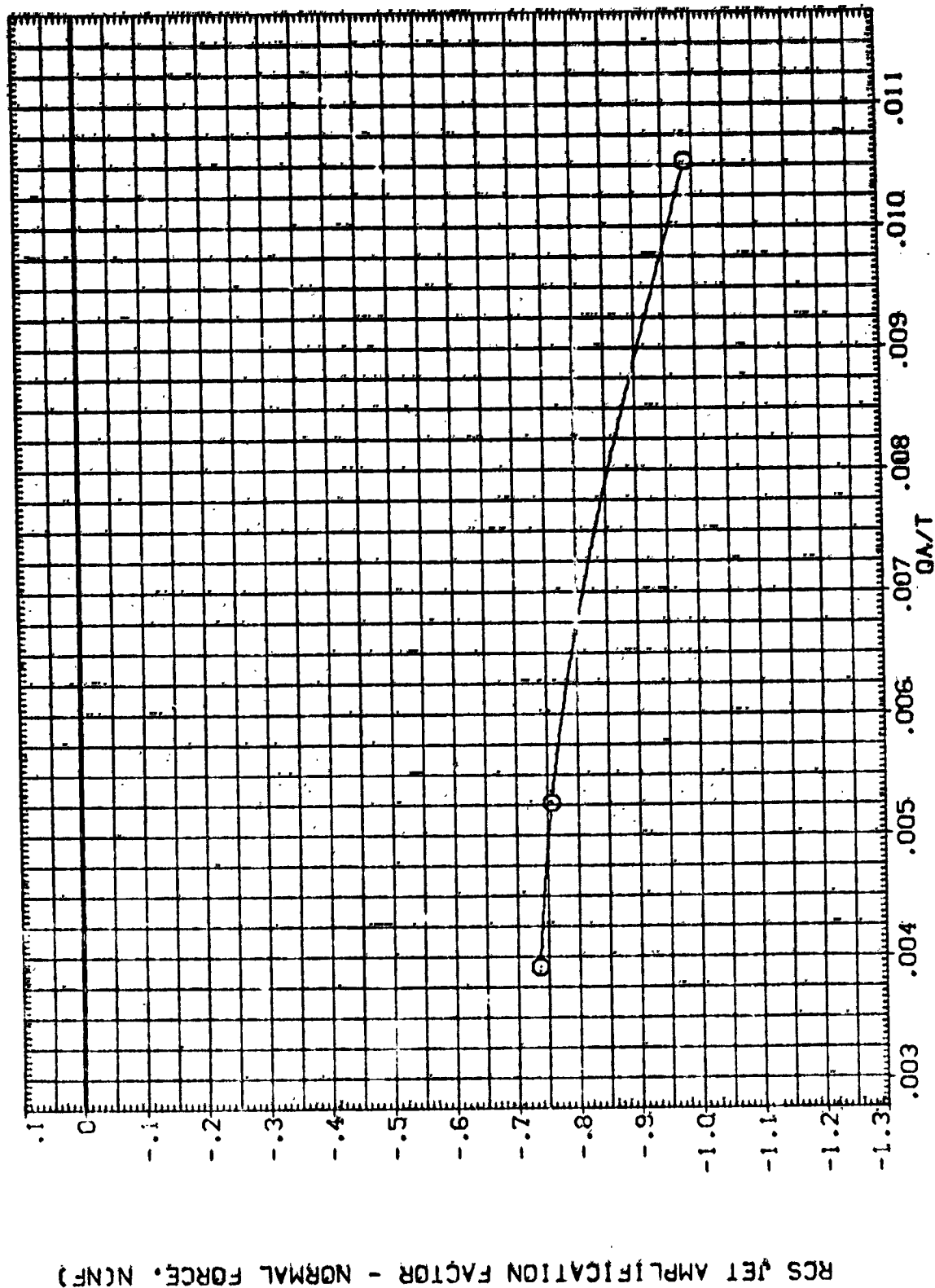


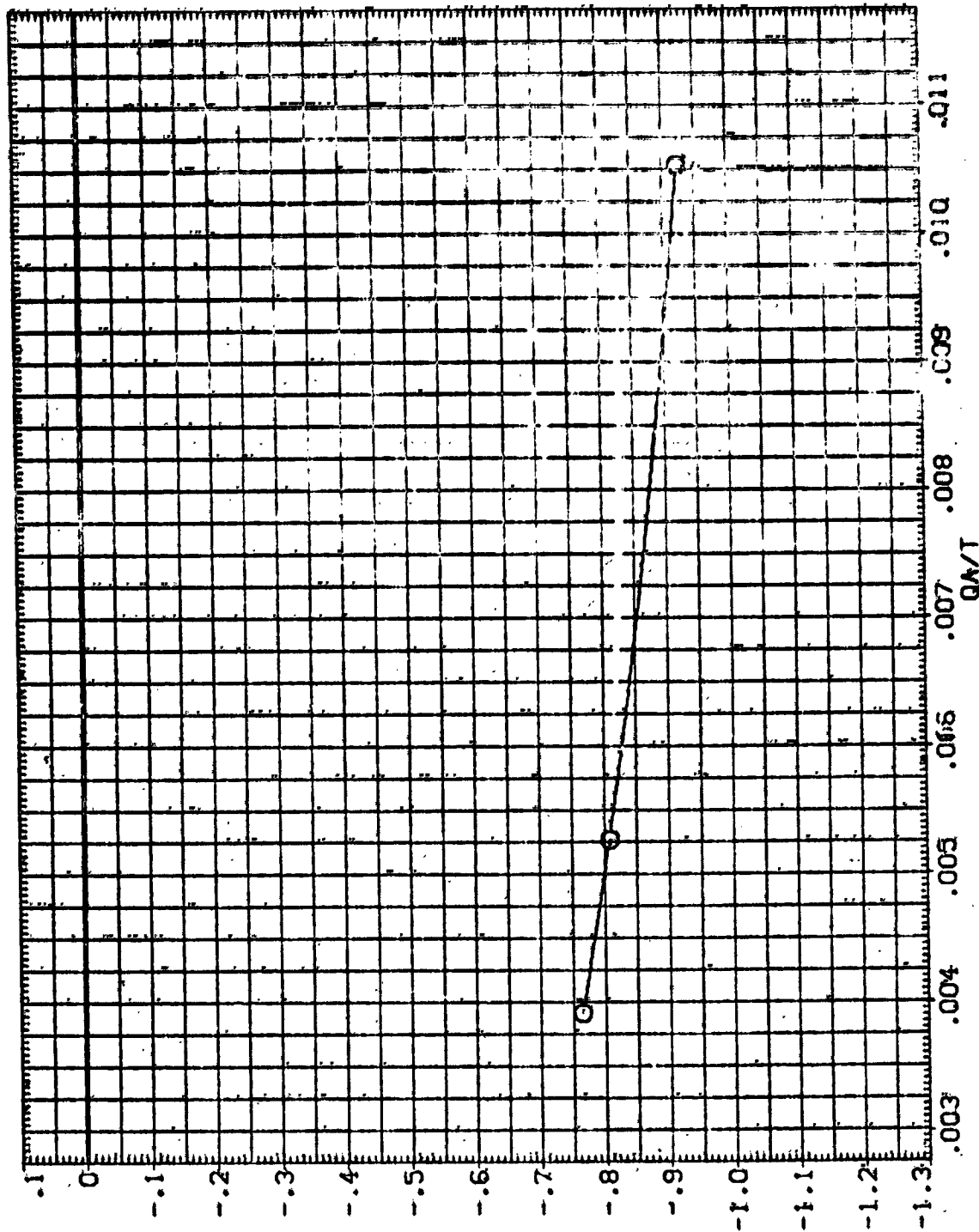
FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(A) ALPHA = -8.00

DATA SET SYMBOL: O
(SJA030) O: Q180500 LARC CFM 118 (MA-22)

ELEVON NO. JET BOFLAP PERA
.000 2.000 .000 .000

REFERENCE INFORMATION
SREF 2690.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.6000 INCHES
XREF 1076.7000 IN. X
YREF .0000 IN. Y
ZREF 375.0000 IN. Z
SCALE .0100



RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(B) ALPHA = .00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA012) Q1 Q2 35N50 LARC CMT 110 (110-22)

ELEVON .000 NO. JET 2.000 BDFLAP .000 BETA .000

REFERENCE INFORMATION
SREF 2696.0000 SO. FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. XE
YMRP .0000 IN. YE
ZMRP 375.0000 IN. ZE
SCALE .0100

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, NCN1)

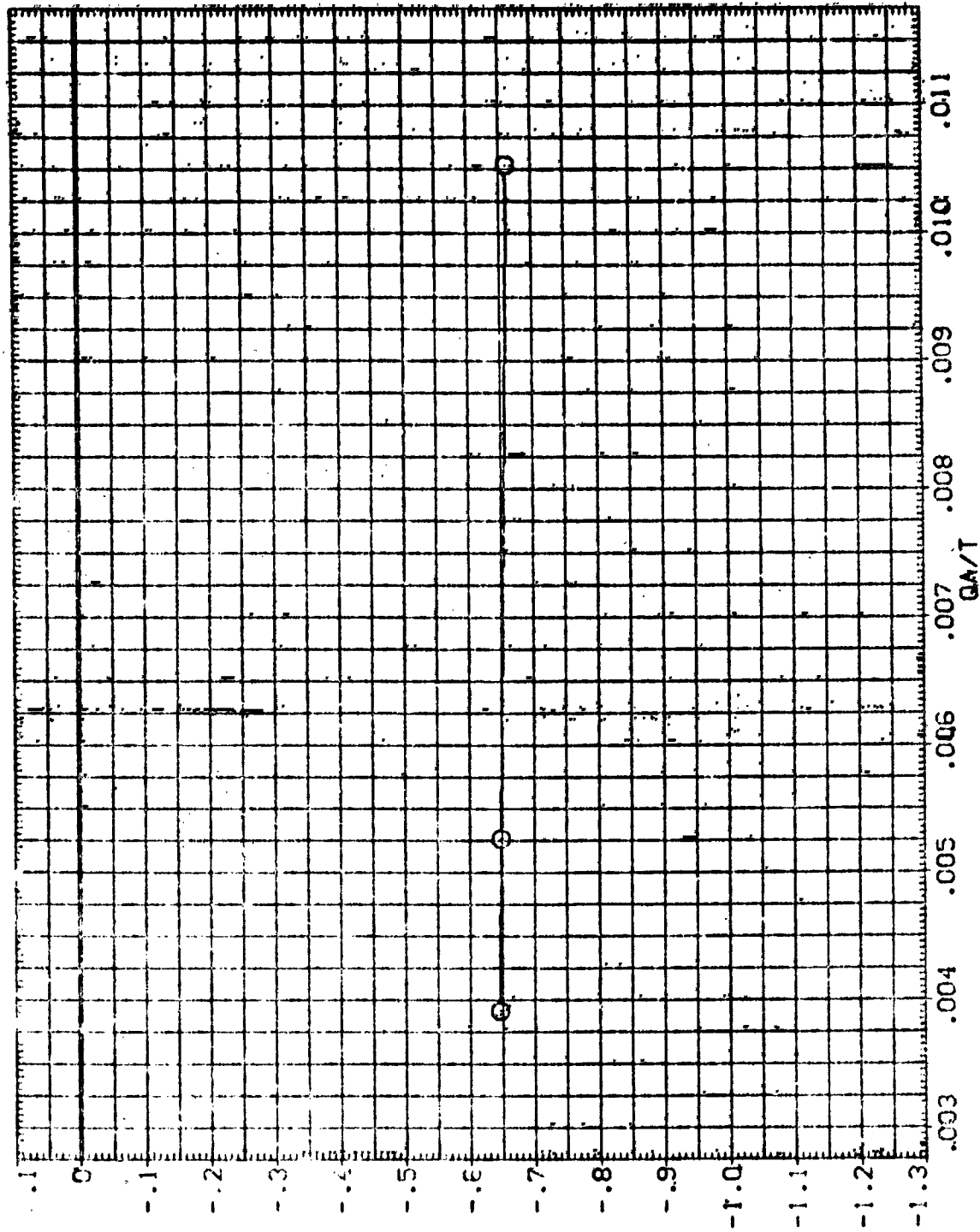


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(C) ALPHA = 10.00

DATA SET SYMBOL (SJA010) ○

CONFIGURATION DESCRIPTION

Q1000S0 LARC CFHT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 CO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X
 YMRP .0000 IN. Y
 ZMRP 325.0000 IN. Z
 SCALE .0100

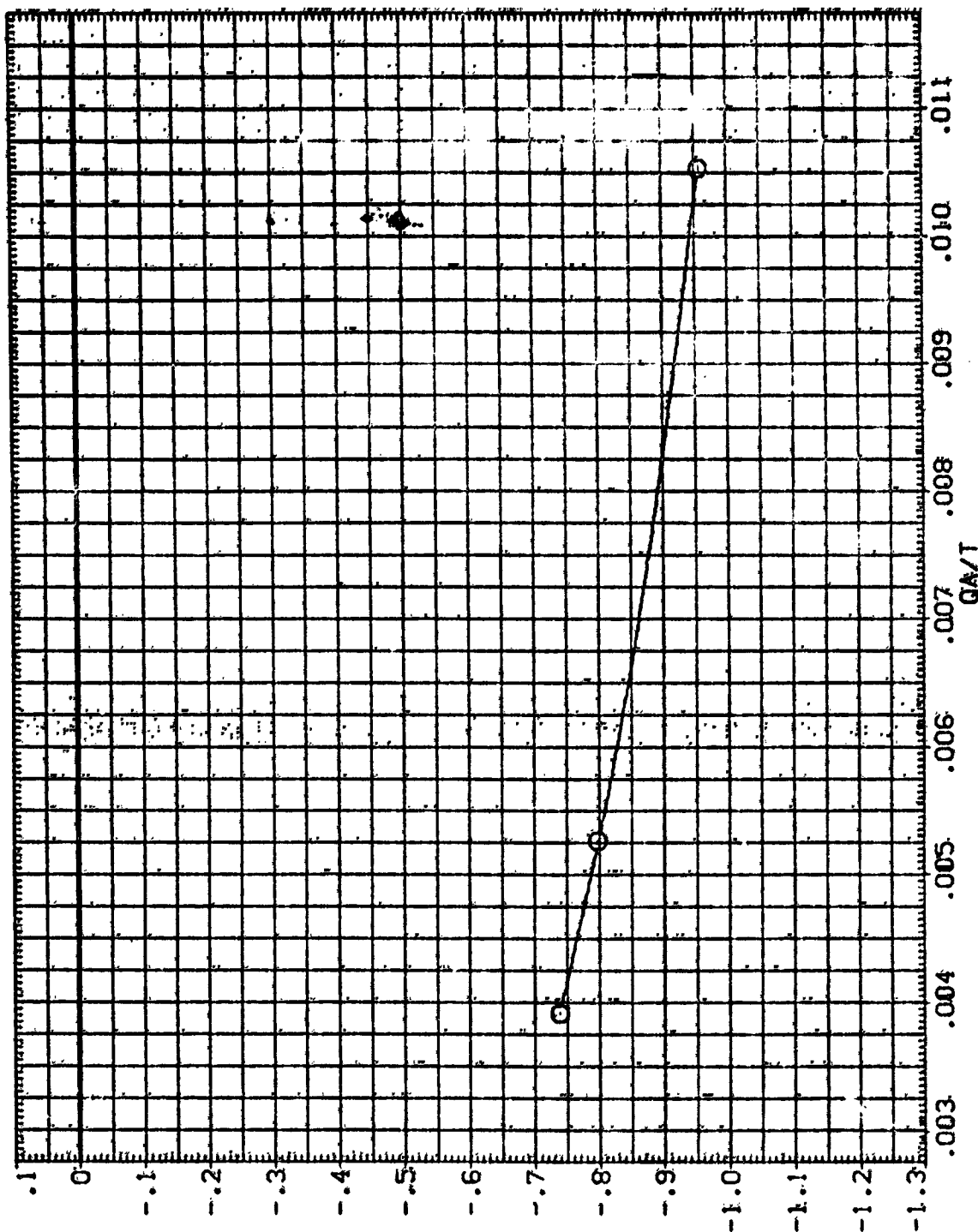


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(Q) ALPHA = 20.00

DATA SET SYMBOL ○ CONFIGURATION DESCRIPTION
(534010) ○ 01N85N80 LARC CRMT 118 (NA-22)

ELEVON NO. JET REF. LAP BETA
.000 2.000 .000 .000

REFERENCE INFORMATION
SREF 2630.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. X0
YMRP 0800 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100

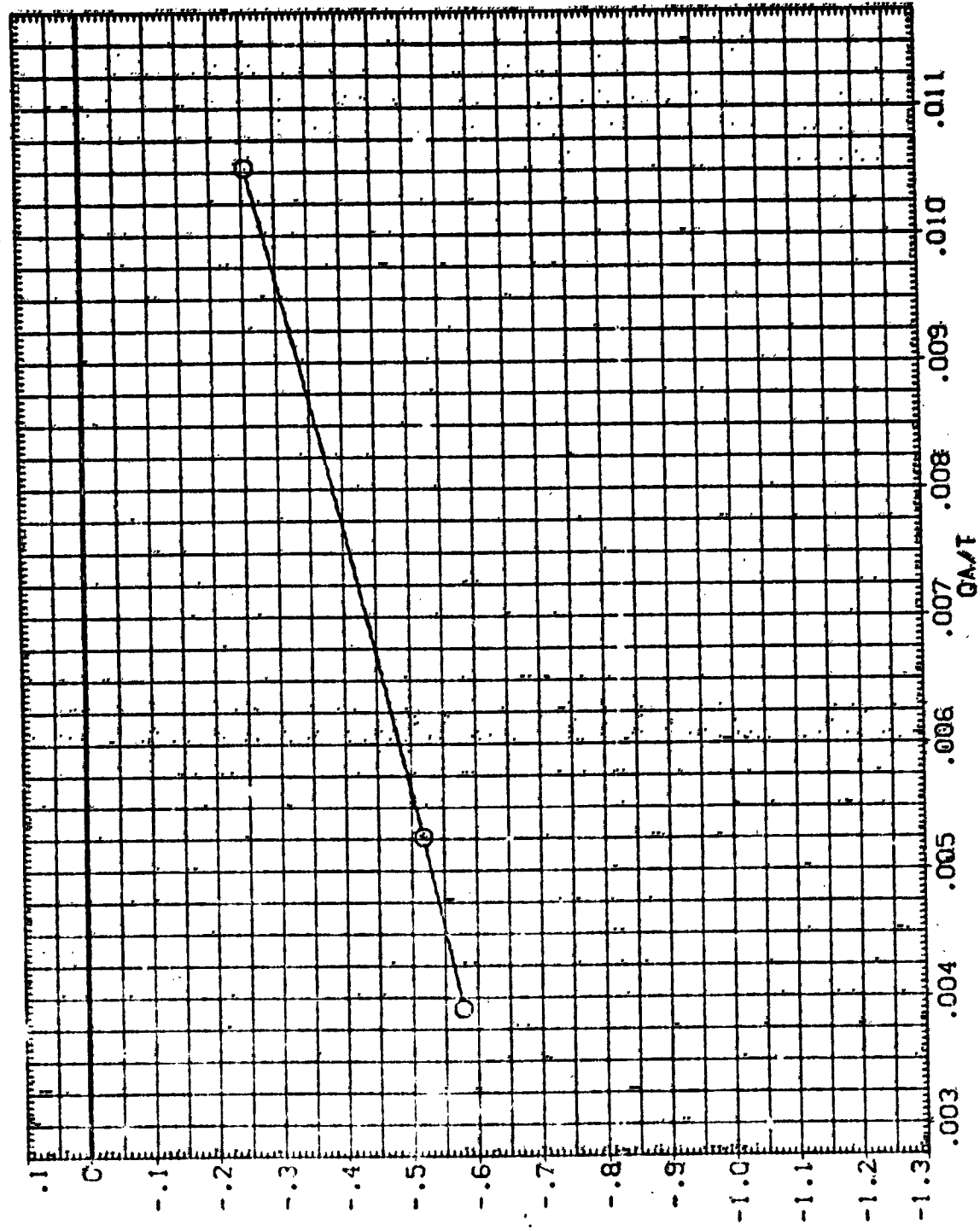


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(E)ALPHA = 35.00

DATA SET SYMBOL (SJA010-1) O 01085N50 LARC CFMT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 935.6800 INCHES
 XMRP 1076.7000 IN. XZ
 YMRP .0000 IN. YZ
 ZMRP 175.0880 IN. ZB
 SCALE .0100

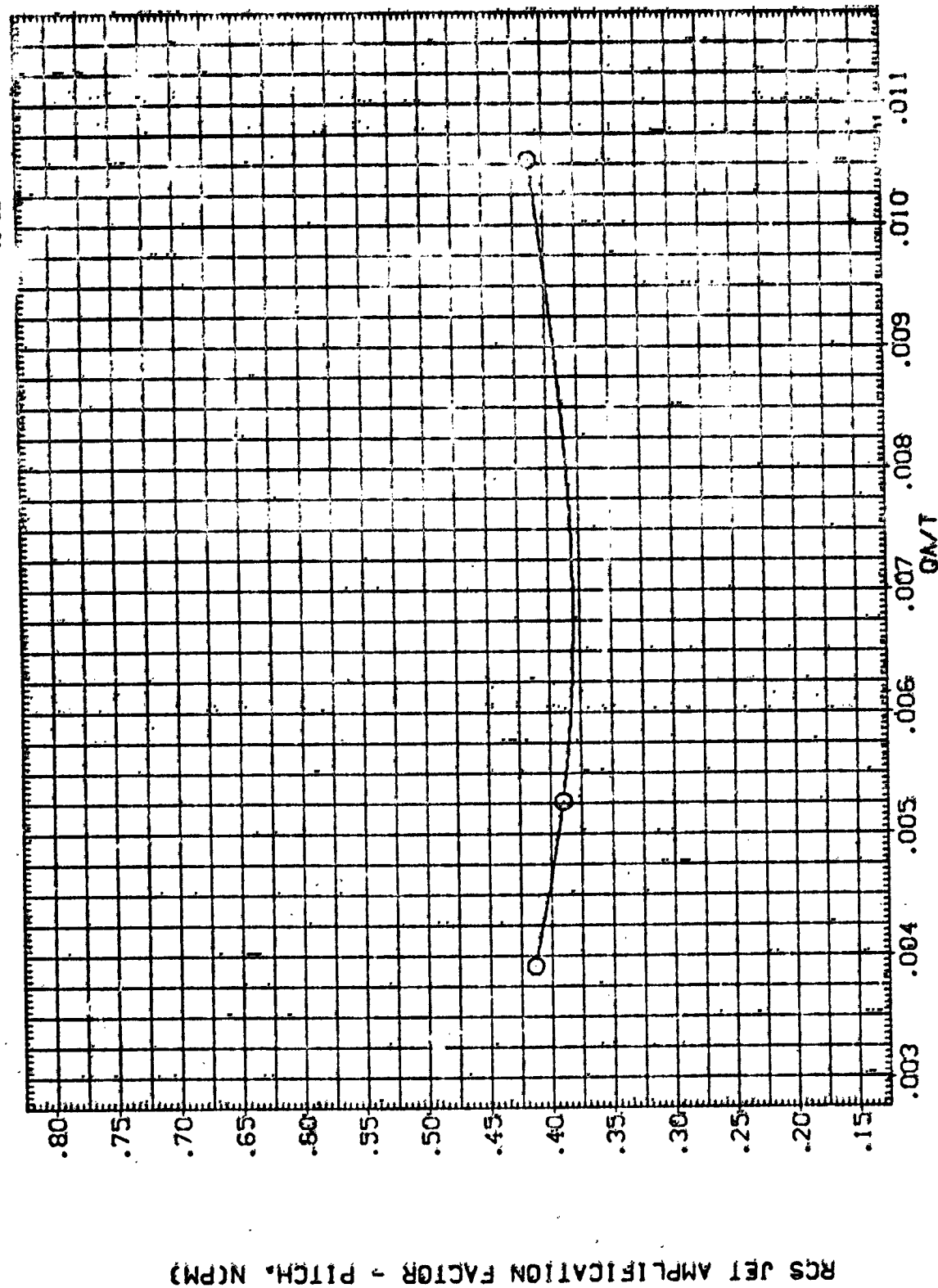


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(A) ALPHA = -8.00

DATA SET SYMBOL (SCA0107)
 CONFIGURATION DESCRIPTION (01N5N50 LARC CFHT 118 (NA-22))
 ELEVON .000
 NO. JET 2.000
 BDFLAP .000
 BETA .000
 REFERENCE INFORMATION
 SREF 2630.0000
 LREF 424.8000
 BREF 936.6800
 XMRP 1076.7000
 YMRP .0000
 ZMRP 375.0000
 SCALE .0100
 SO. FT. INCHES
 INCHES IN. X0
 IN. Y0
 IN. Z0

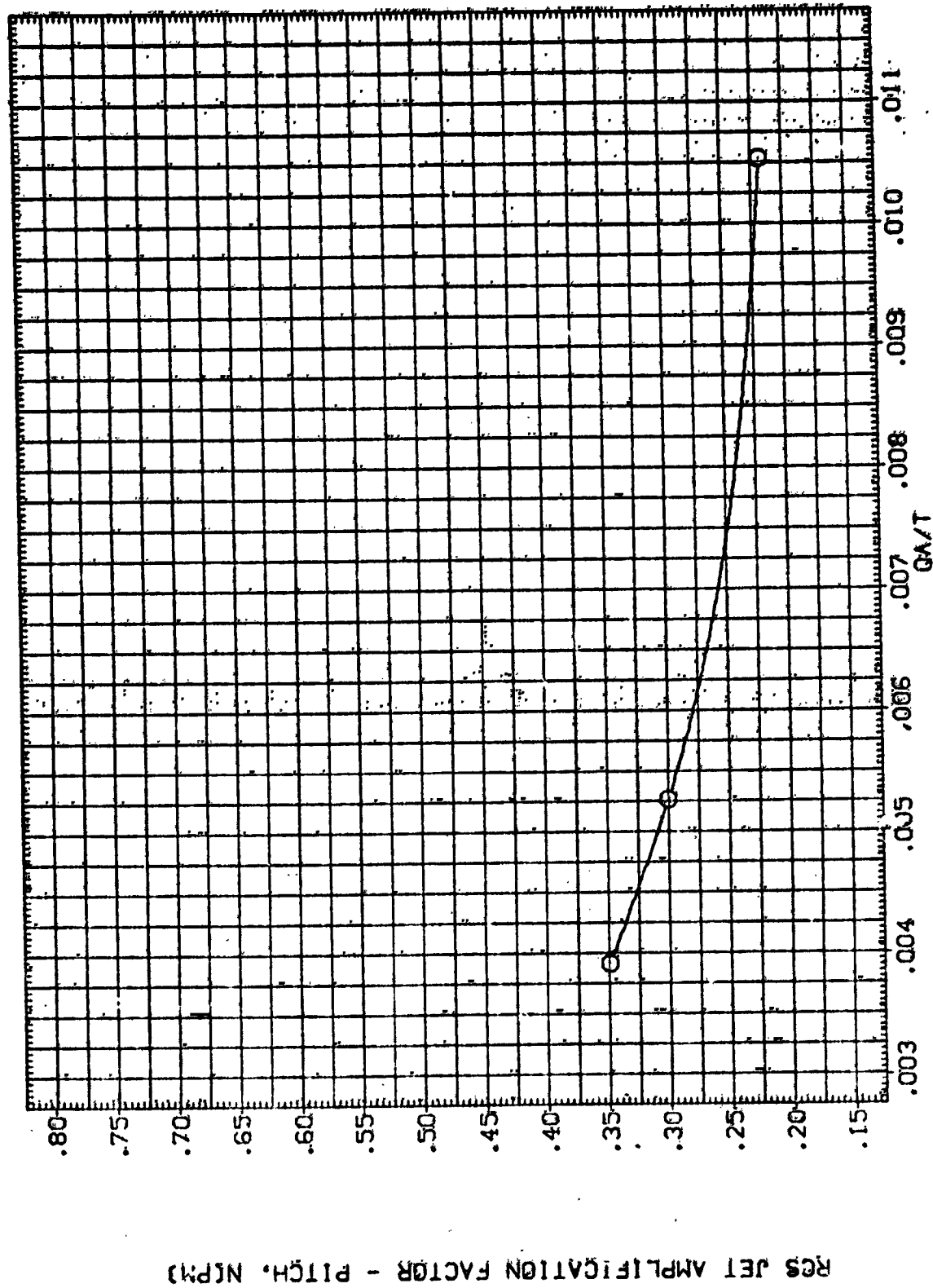


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(B) ALPHA = .00

DATA SET SYMBOL (SJAD10) \odot CONFIGURATION DESCRIPTION 01N85150 LARC CFT 118 (MA-22)

ELEVON .000 NO-JET 80FLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.000 50.0 FT
 LREF 474.8000 INCHES
 BREF 936.8800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP 0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE 1.0100

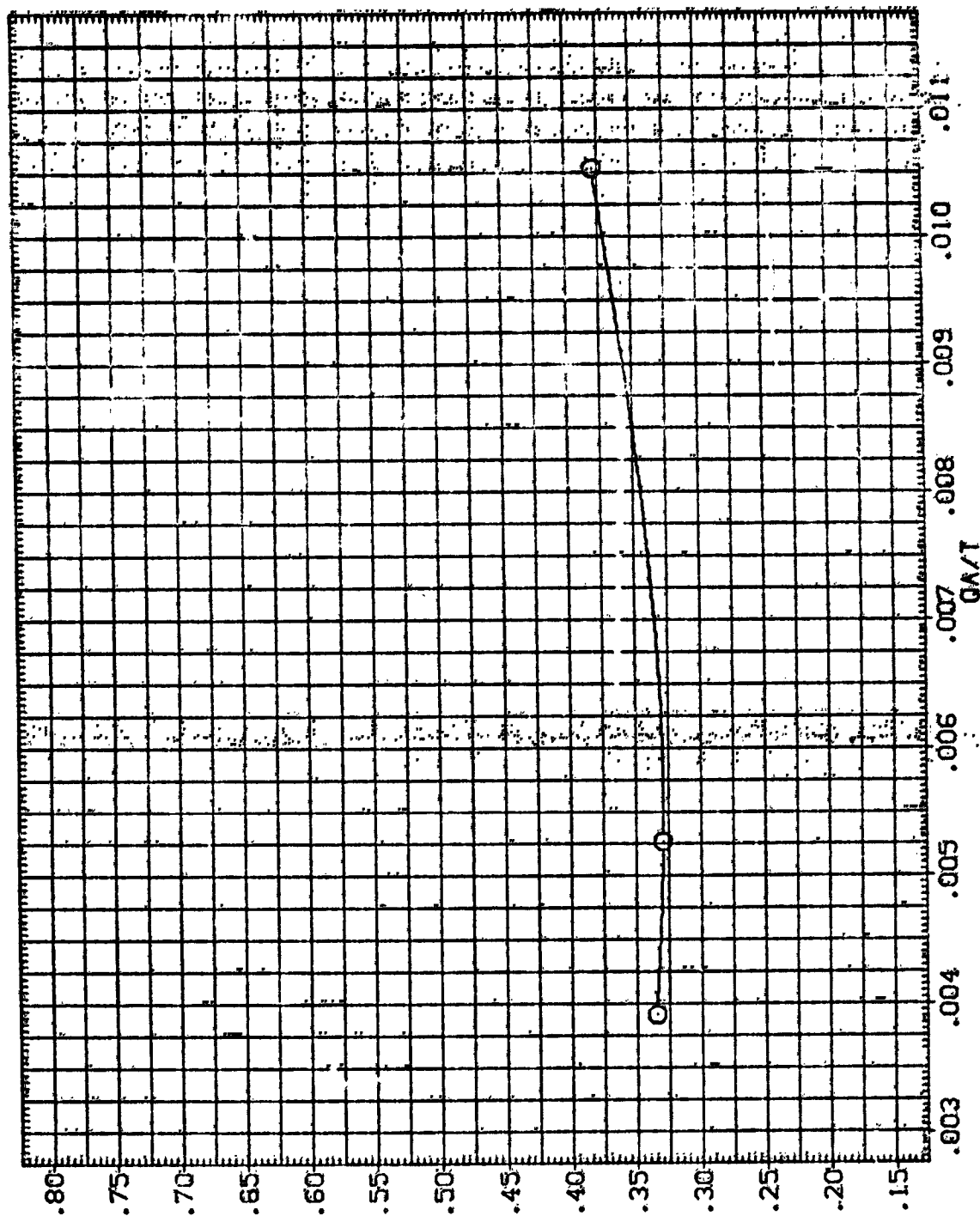


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(C)ALPHA = 10.00

DATA SET SYMBOL (SJA010.) O Q1N8NSQ LARC CPHJ 118 (MA-22J)

ELEVON .008 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. X0
 YREF 375.0000 IN. Y0
 ZREF .0100 SCALE

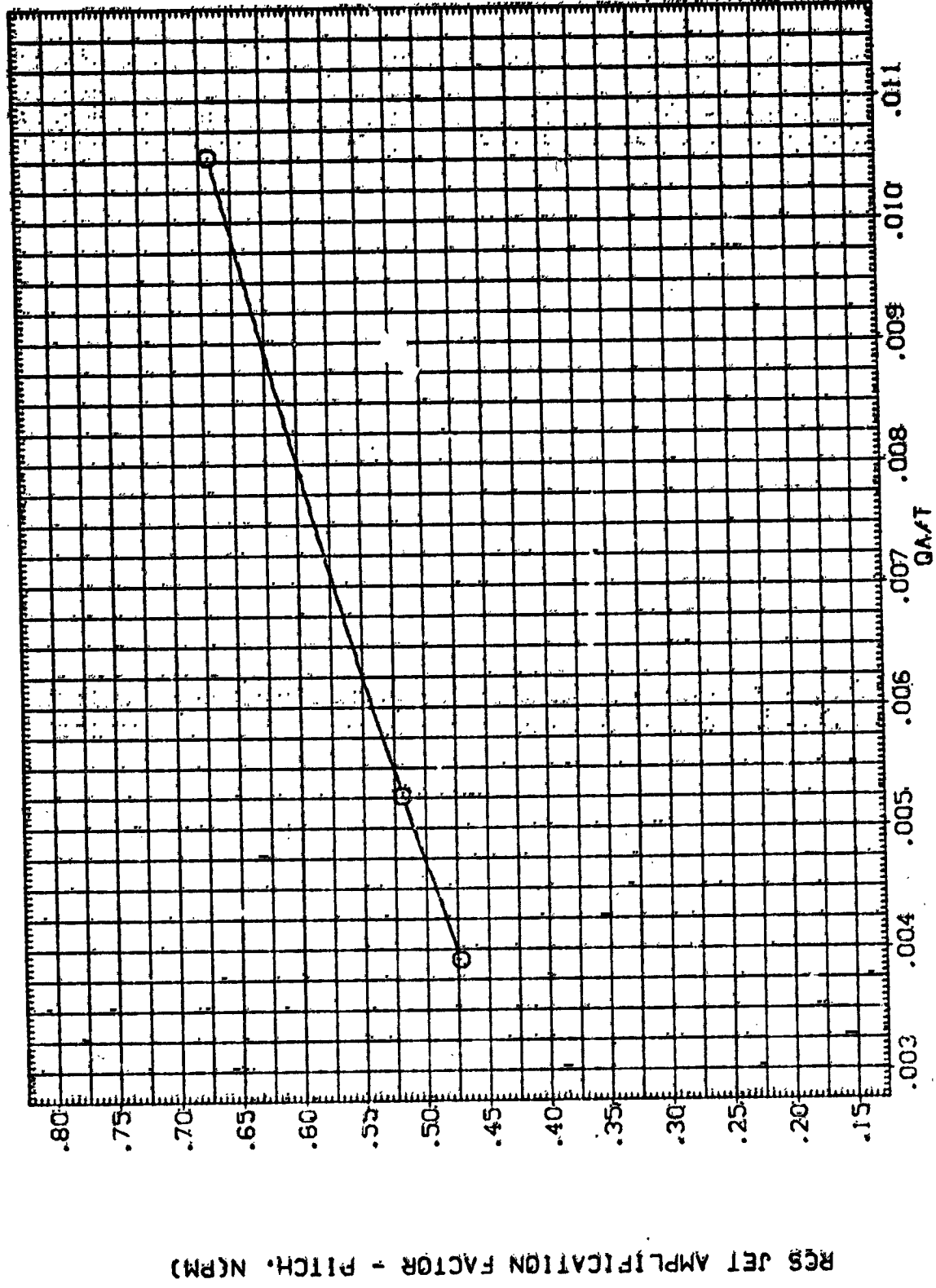


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N65

(O) ALPHA = 20.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SLAB10) O 01N85N50 LARE CFAT 119 (HA-22)

ELEVON .000 NO-JET BOFLAP .000 BETA .000

REFERENCE INFORMATION
SREF 0553.0000 SQ-FT
LREF 174.3000 INCHES
BREF 935.6800 INCHES
XMRP 016.7000 IN. 40
YMRP 375.0000 IN. 40
ZMRP 375.0000 IN. 40
SCALE .3175

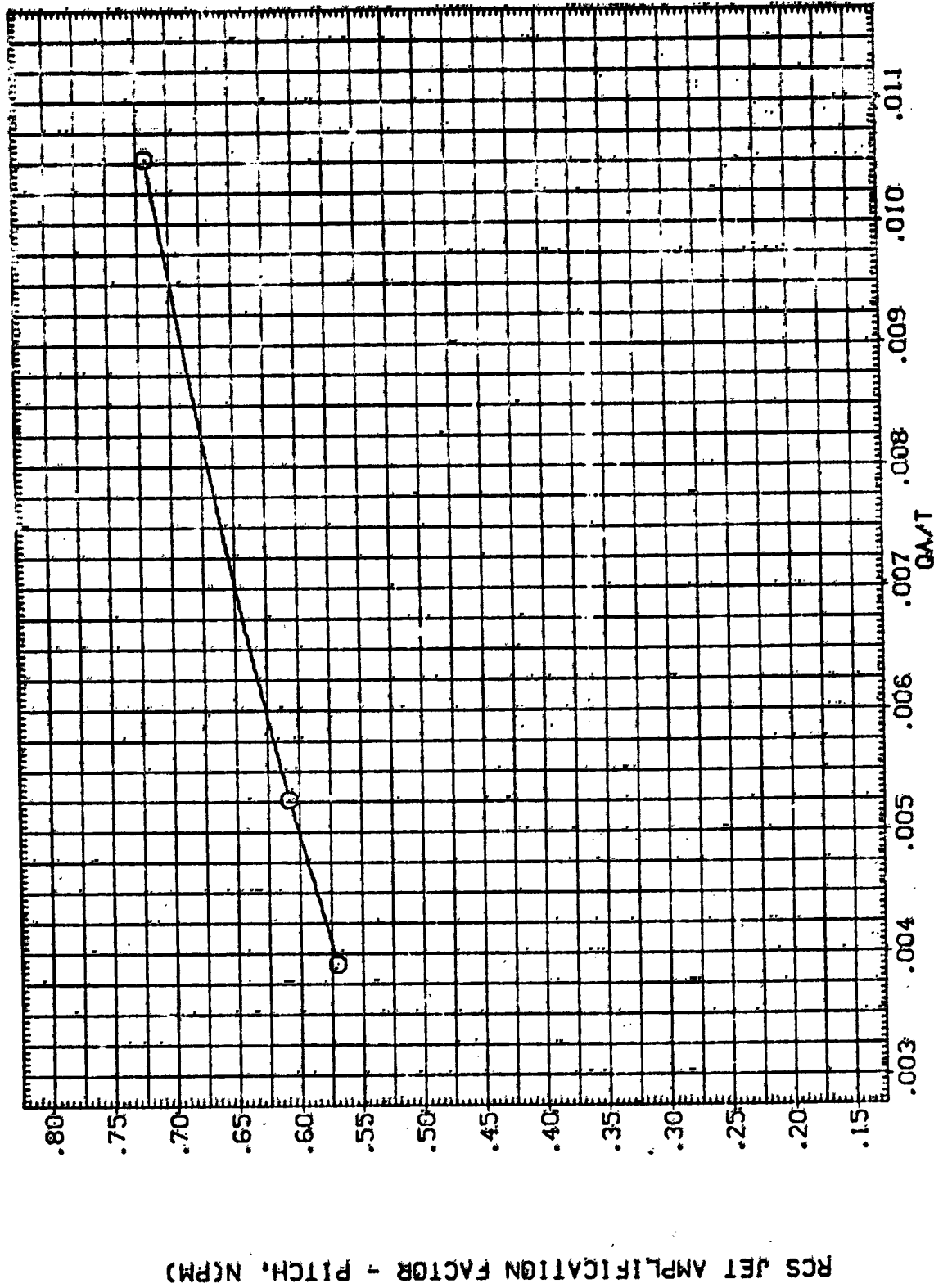


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(E) ALPHA = 35.00

REFERENCE INFORMATION

SREF	2650.0000	SO. FT.
LREF	474.8000	INCHES
BREF	996.6800	INCHES
XPRP	1076.2000	IN. X
YPRP	0.0000	IN. Y
ZPRP	375.0000	IN. Z
SCALE	.0100	

ELEVON .000

NO. JET 2.000

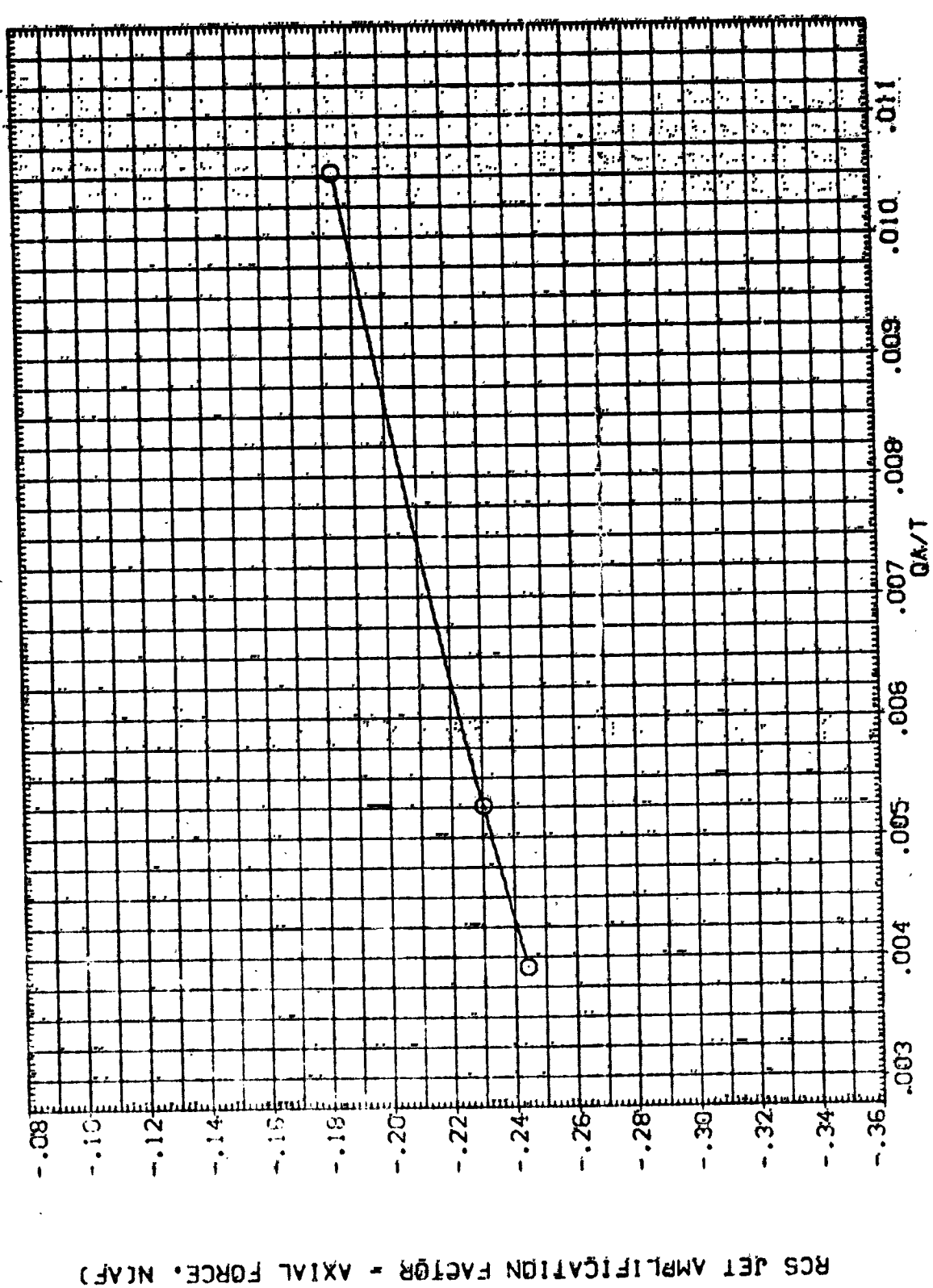
BOFLAP .000

BETA .000

DATA SET SYMBOL

CONFIGURATION DESCRIPTION

(S1/000) C185130 LARC CFWT 118 (HA-22)



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE. NCAF)

FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(A) ALPHA = -8.00

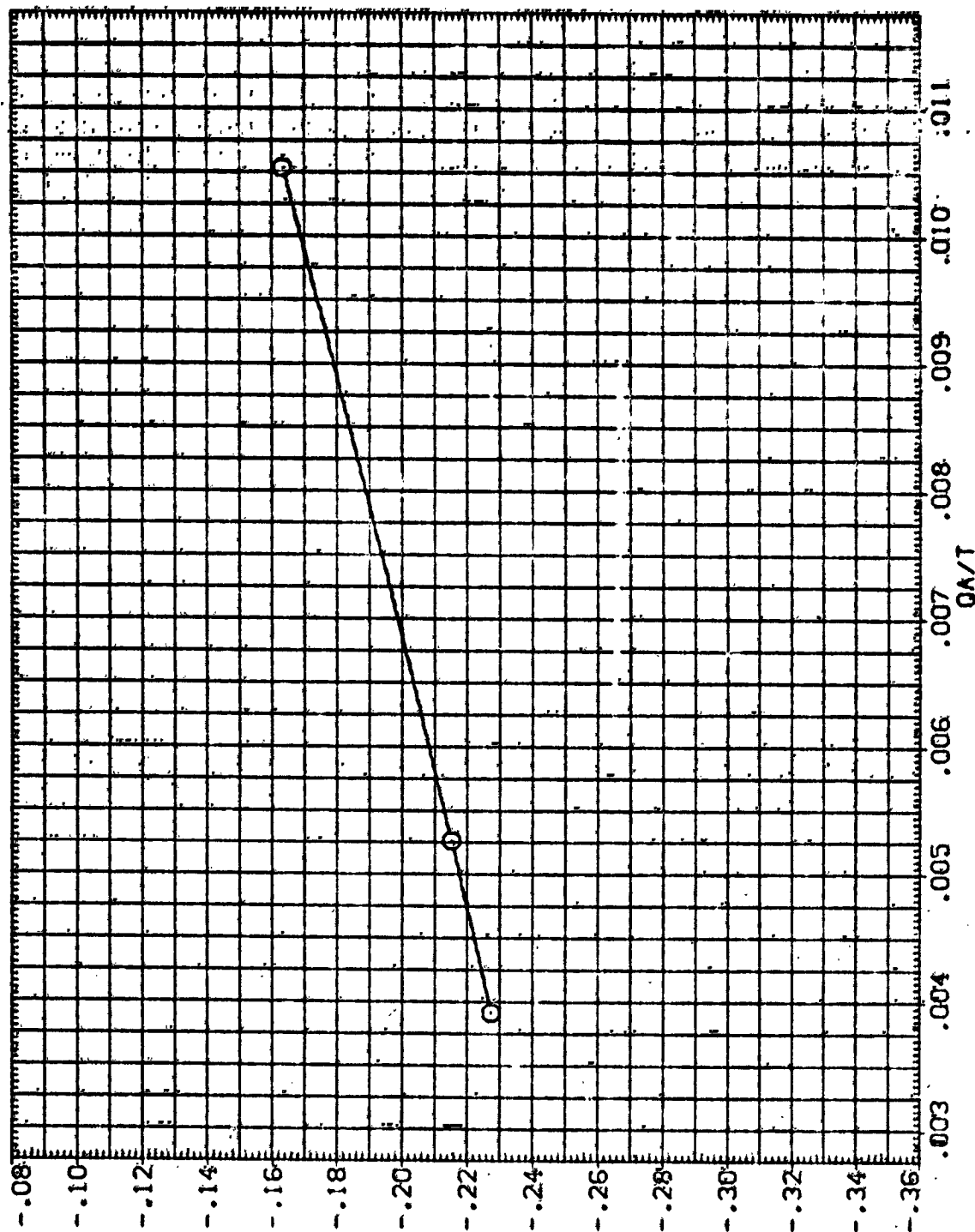
DATA SET SYMBOL: Q
 (SJA010) Q

CONFIGURATION DESCRIPTION

CLIMBING LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP BELT
 .008 2.002 .000 .000

REFERENCE INFORMATION
 SREF 2690.000 SOFT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. YD
 YREF .0000 IN. YD
 ZREF 375.0000 IN. YD
 SCALE 10100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCAF)

FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(B)ALPHA = .00.

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJM010) O C1N85N50 LARG CFHT 118 (NA-22)

ELEVON NO. JET BOFLAP BETA REFERENCE INFORMATION

.000	2.000	.060	.000	SREF 2690.0000 SQ. FT.
				LREF 474.8000 INCHES
				BREF 936.6800 INCHES
				XMRP 1076.7000 IN. X0
				YMRP .0000 IN. Y0
				ZMRP 375.0000 IN. Z0
				SCALE .0100

RCS JET AMPLIFICATION FACTOR = AXIAL FORCE, NCAF)

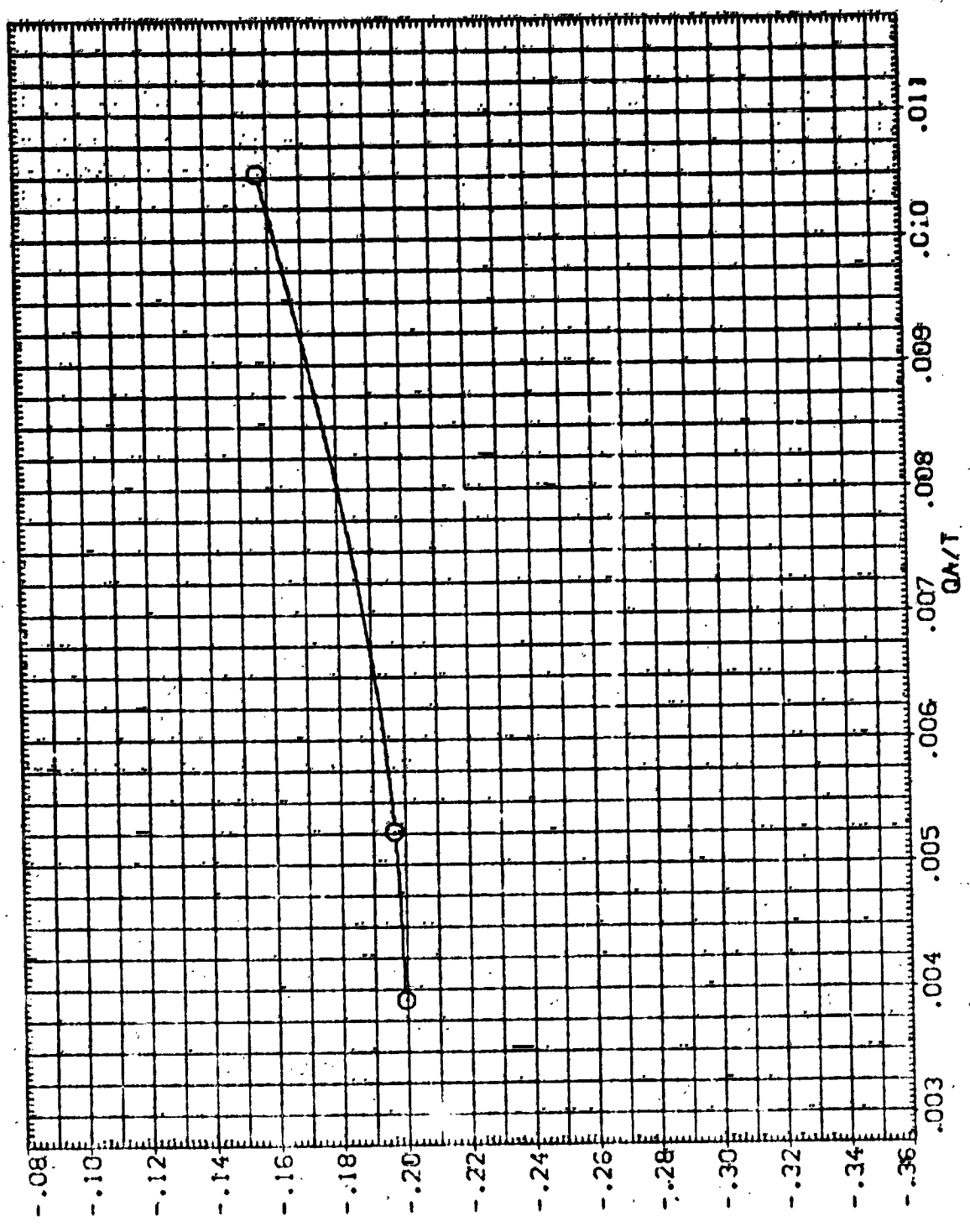


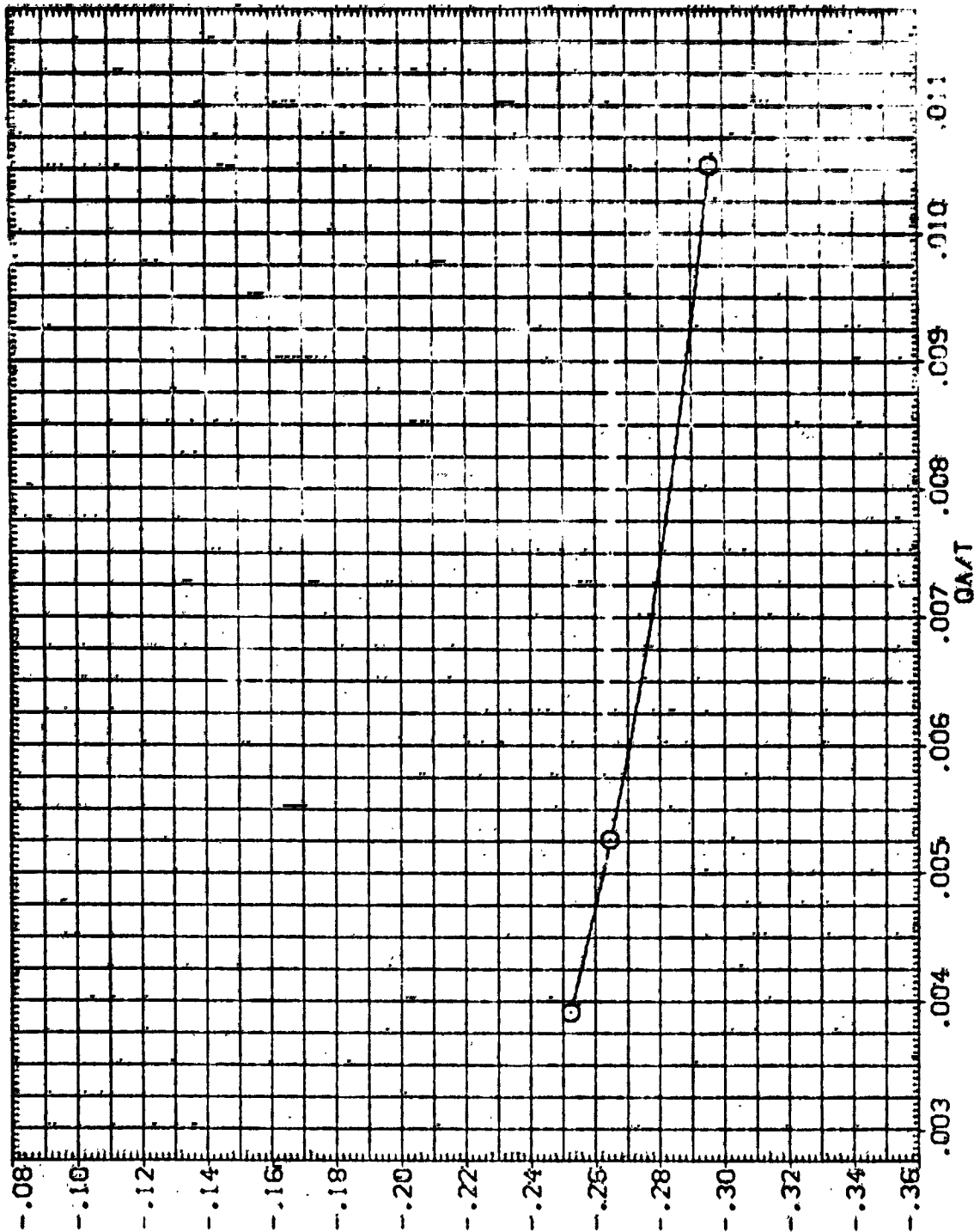
FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(C)ALPHA = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SLAD10) 0 DIMEN50 LARC CFHT 118 (HA-22)

ELEVEN NO. JET BDRAP BETA
.000 2.000 .000 .000

REFERENCE INFORMATION
SREF 2650.0000 SQ.FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XREF 1075.7000 IN. NO
YREF .0000 IN. NO
ZREF 375.0260 IN. NO
SCALE .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, N AF)

FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(O) ALPHA = 20.00

DATA SET SYMBOL ○ QIN85N50 LARC CFHT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BDFLAP .090 BETA .000

REFERENCE INFORMATION
 SREF 2630.0000 SD FT.
 LREF 424.8000 INCHES
 BREF 506.6000 IN. X0
 XREF 1076.7000 IN. X0
 YREF .0000 IN. Y0
 ZREF 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCAF

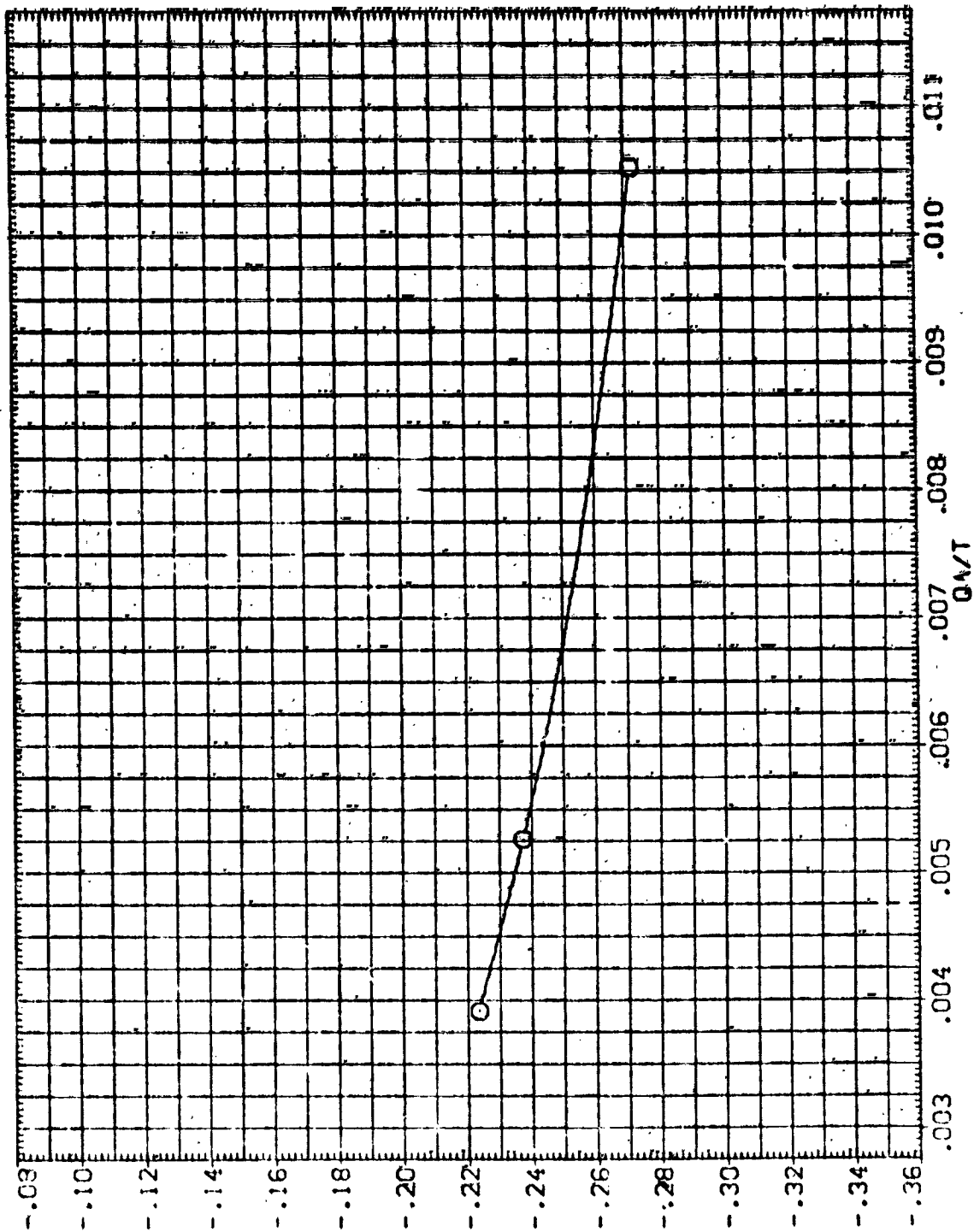


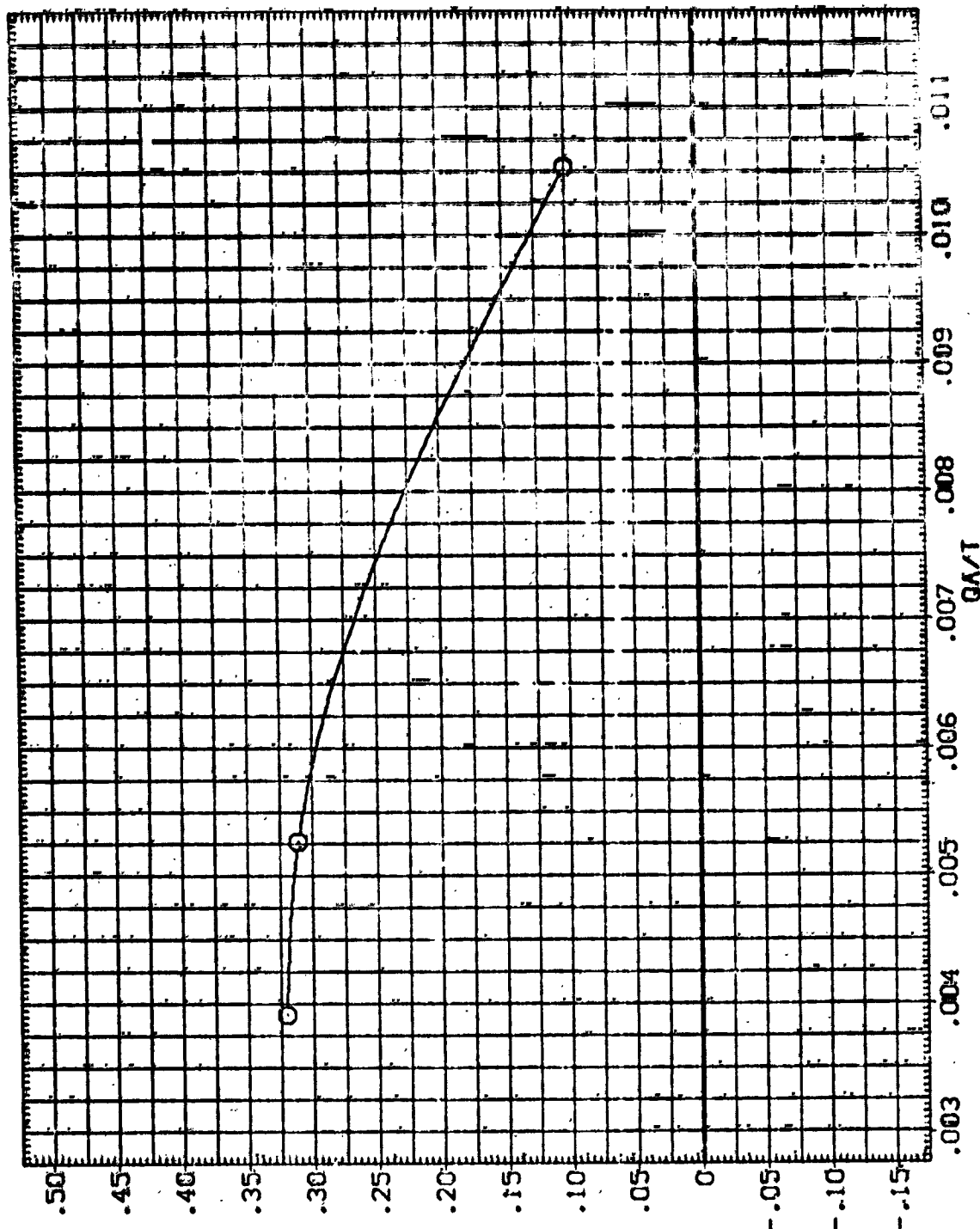
FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(ETA ALPHA = 35.00

DATA SET SYMBOL (SLA010.) O CONFIGURATION DESCRIPTION
 01065N50 LARC CFHT 118 (HA-221)

ELEVON NO JET 80RLAP- .000 2.000 .000 .000

REFERENCE INFORMATION:
 SREF 2380.0000 50 FT.
 LREF 474.8000 100 IN.
 BREF 936.6800 100 IN.
 AREF 1078.7000 100 IN.
 VREF .0000 100 IN.
 ZREF 395.0000 100 IN.
 SCALE .0000



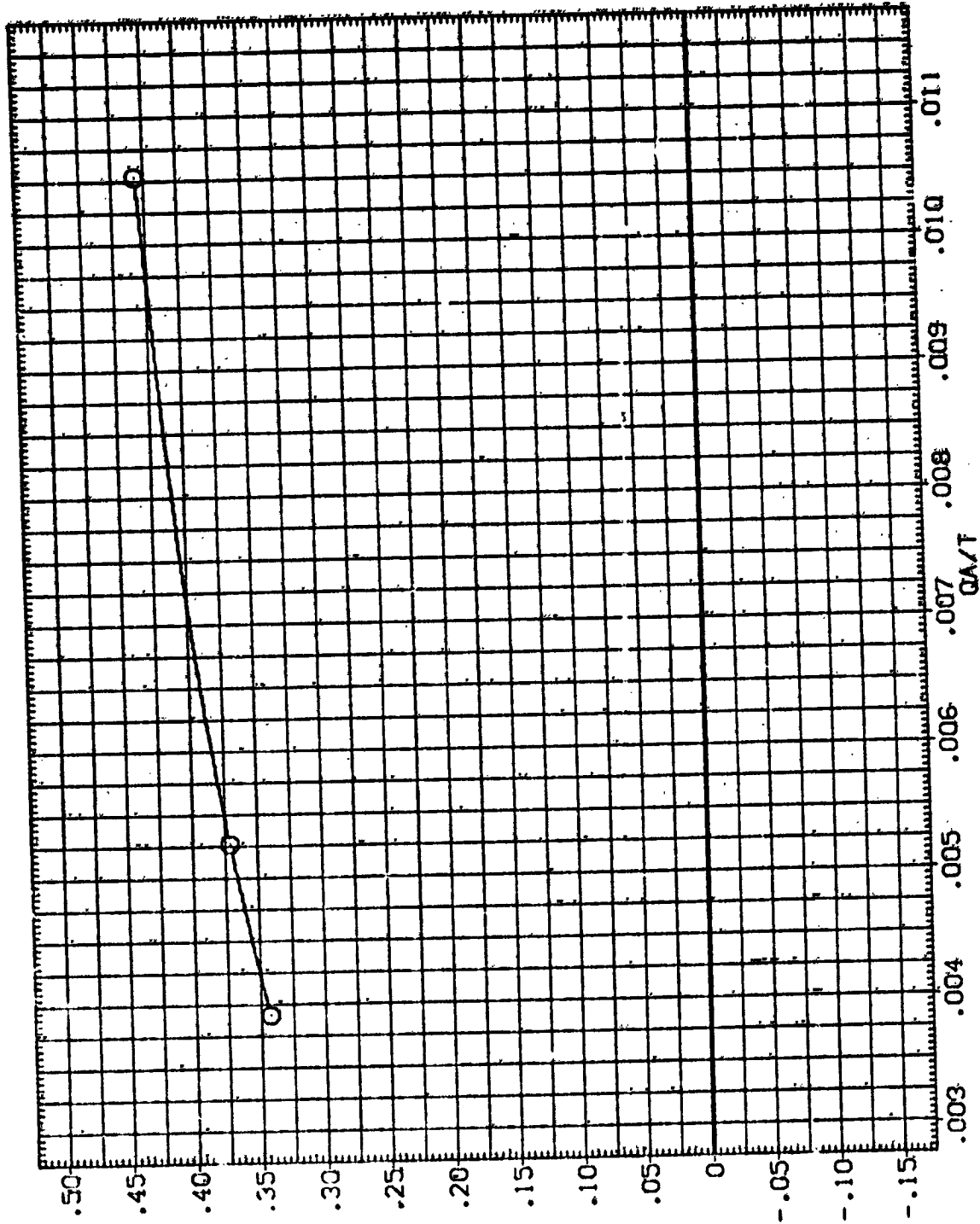
RCS JET AMPLIFICATION FACTOR - ROLL, NRM)

FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(α)ALPHA = -8.00

DATA SET SYMBOL (SJA010) \odot CONFIGURATION DESCRIPTION 0185N50 LARC CFHT 118 (MA-22)

ELEVON .000 NO JET 2.000 BOFLAP .000 BETA .000
 REFERENCE INFORMATION
 SREF 2690.0008 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0080 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, NORM

FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(B) ALPHA = .00

DATA SET SYMBOL: O
 CONFIGURATION DESCRIPTION: LARC CFRT 119 (MA-22)

ELEVON: .000
 NO. JET: 2.080
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2630.0000 SD. FT.
 LREF: 474.8800 INCHES
 BREF: 936.8800 INCHES
 XMRP: 1076.7000 IN. XC
 YMRP: .0000 IN. YO
 ZMRP: 375.0000 IN. ZO
 SCALE: .0100

RCS JET AMPLIFICATION FACTOR - ROLL, NCRM

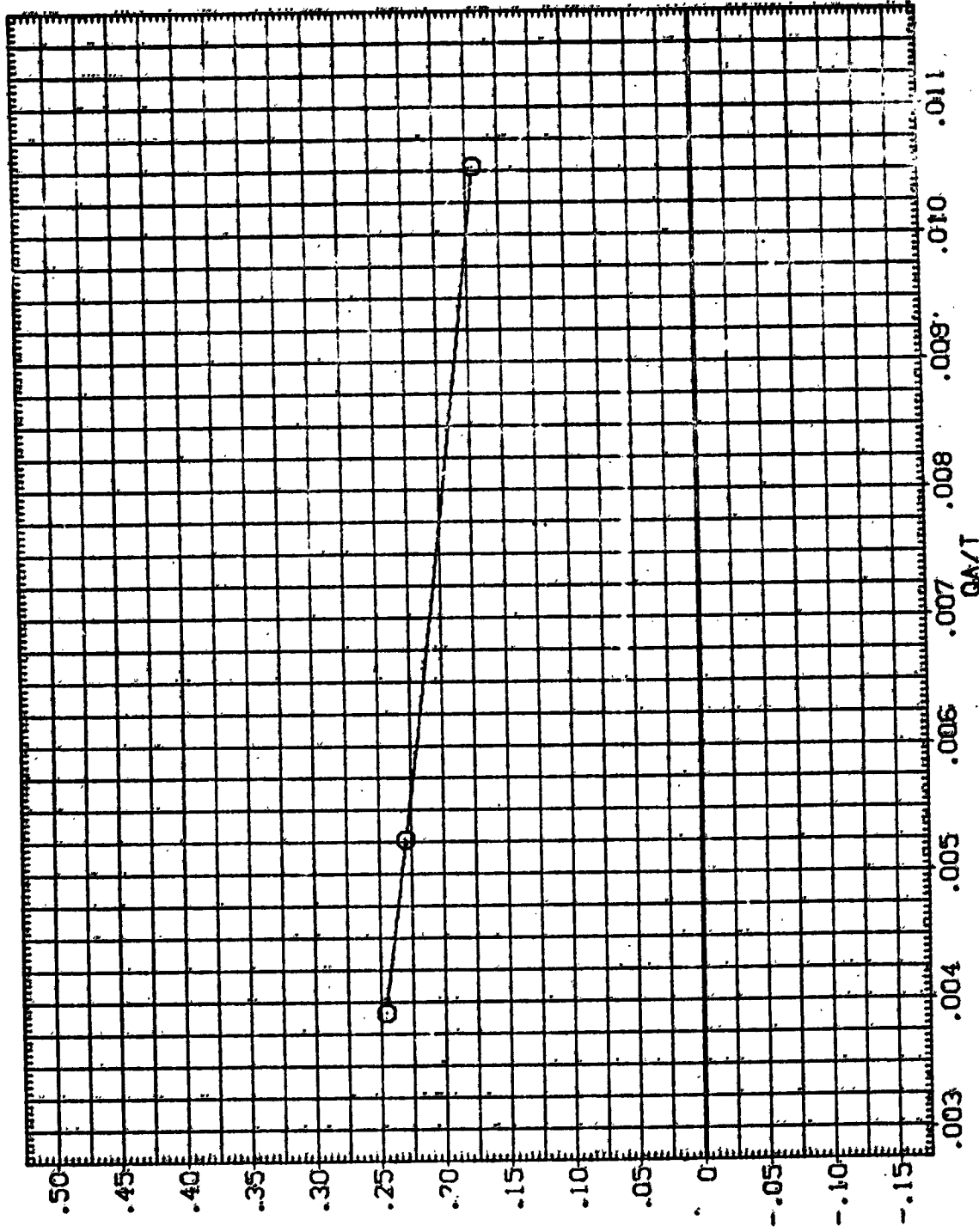


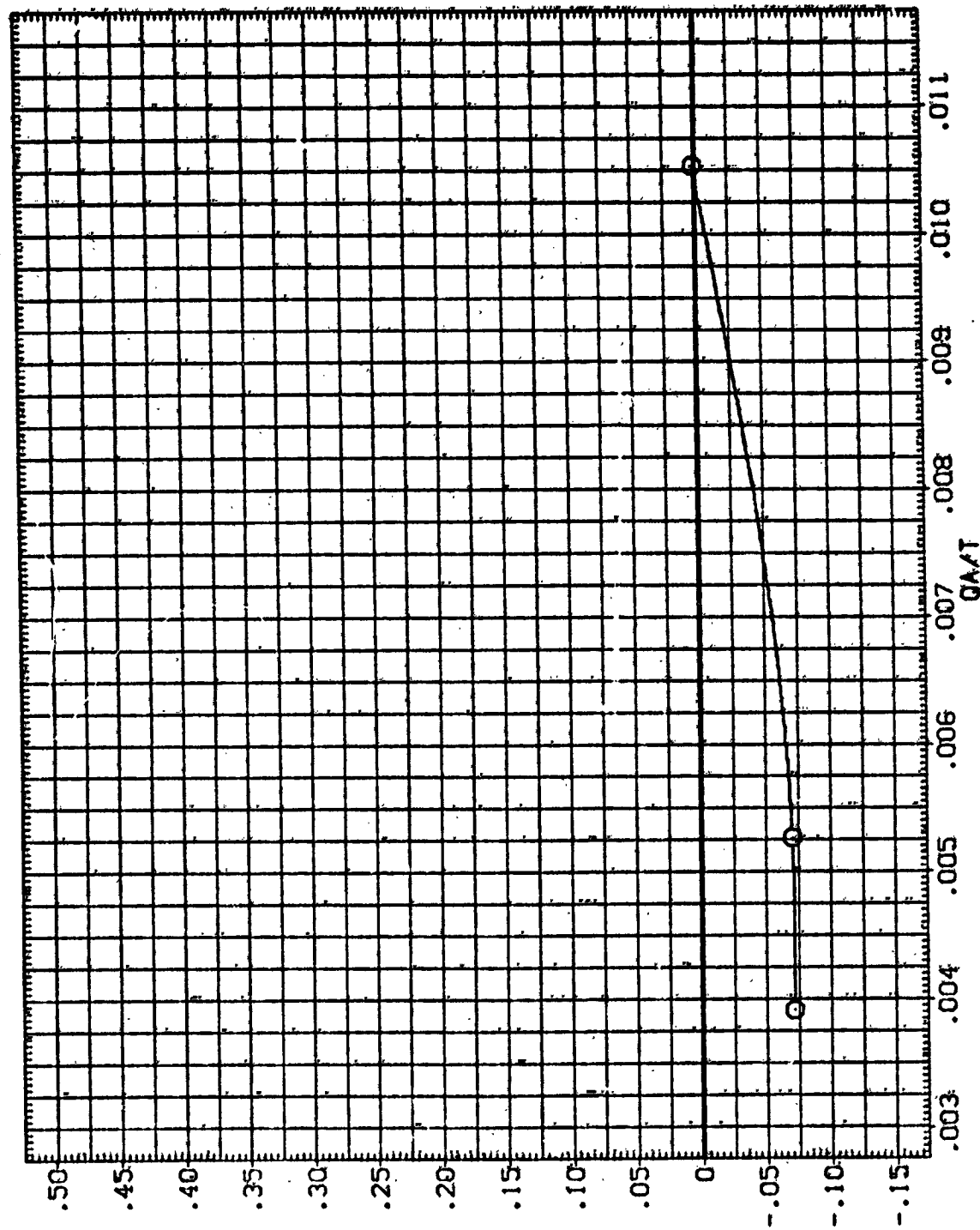
FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(C) ALPHA = 10.00

DATA SET SYMBOL (SJA010) \circ CONFIGURATION DESCRIPTION 01NBSN50 LARC CFHT 118 (MA-221)

ELEVON .000^o NO-JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0600 SQ.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7800 IN. 10
 YMRP .0600 IN. 10
 ZMRP 375.0600 IN. 20
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL (NRM)

FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

COJALPHA = 20.00

DATA SET SYMBOL: 01N85N50
 CONFIGURATION DESCRIPTION: LARC GFHT 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6900 INCHES
 XMRP: 1076.7690 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

RCS JET AMPLIFICATION FACTOR - ROLL, N(RM)

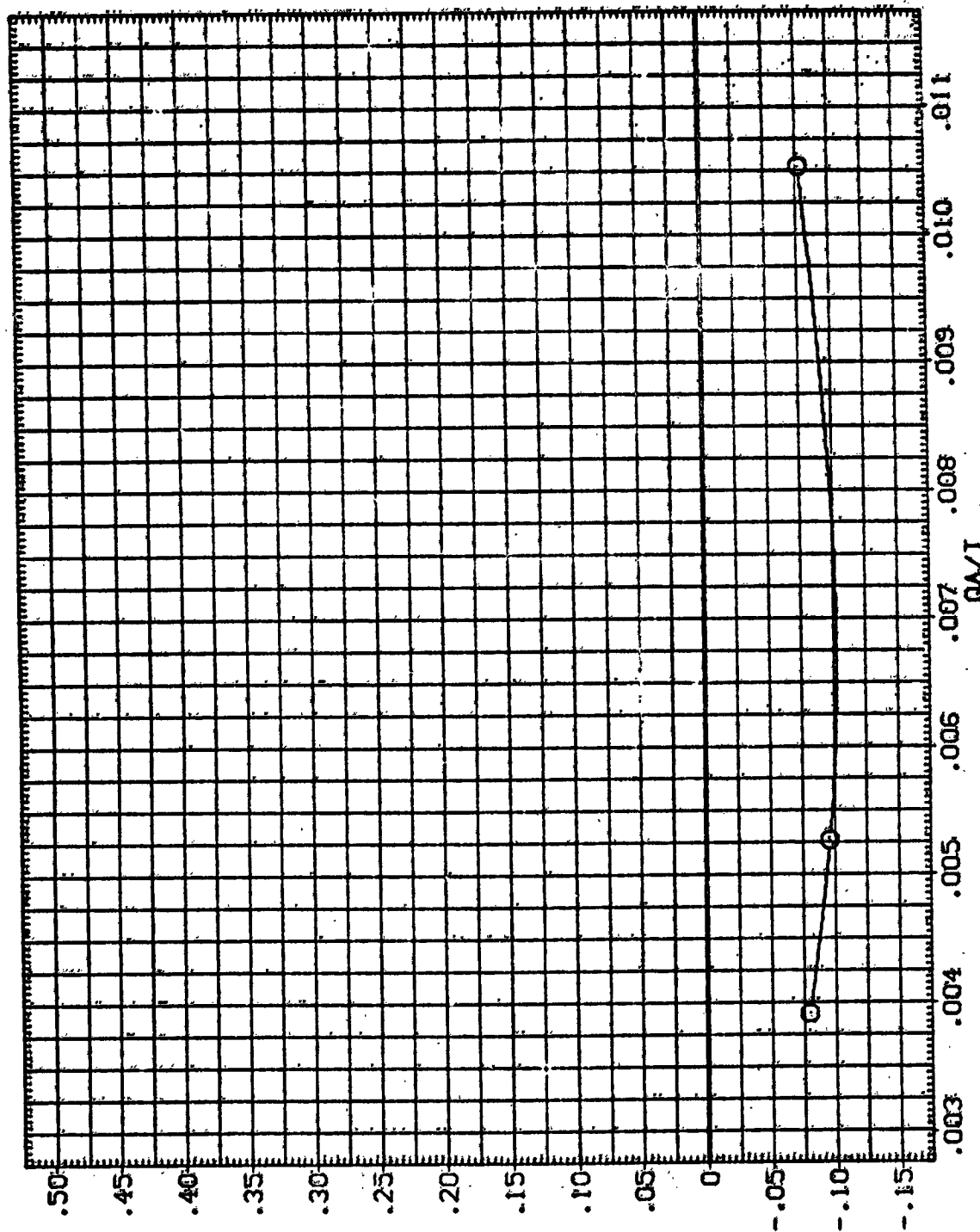
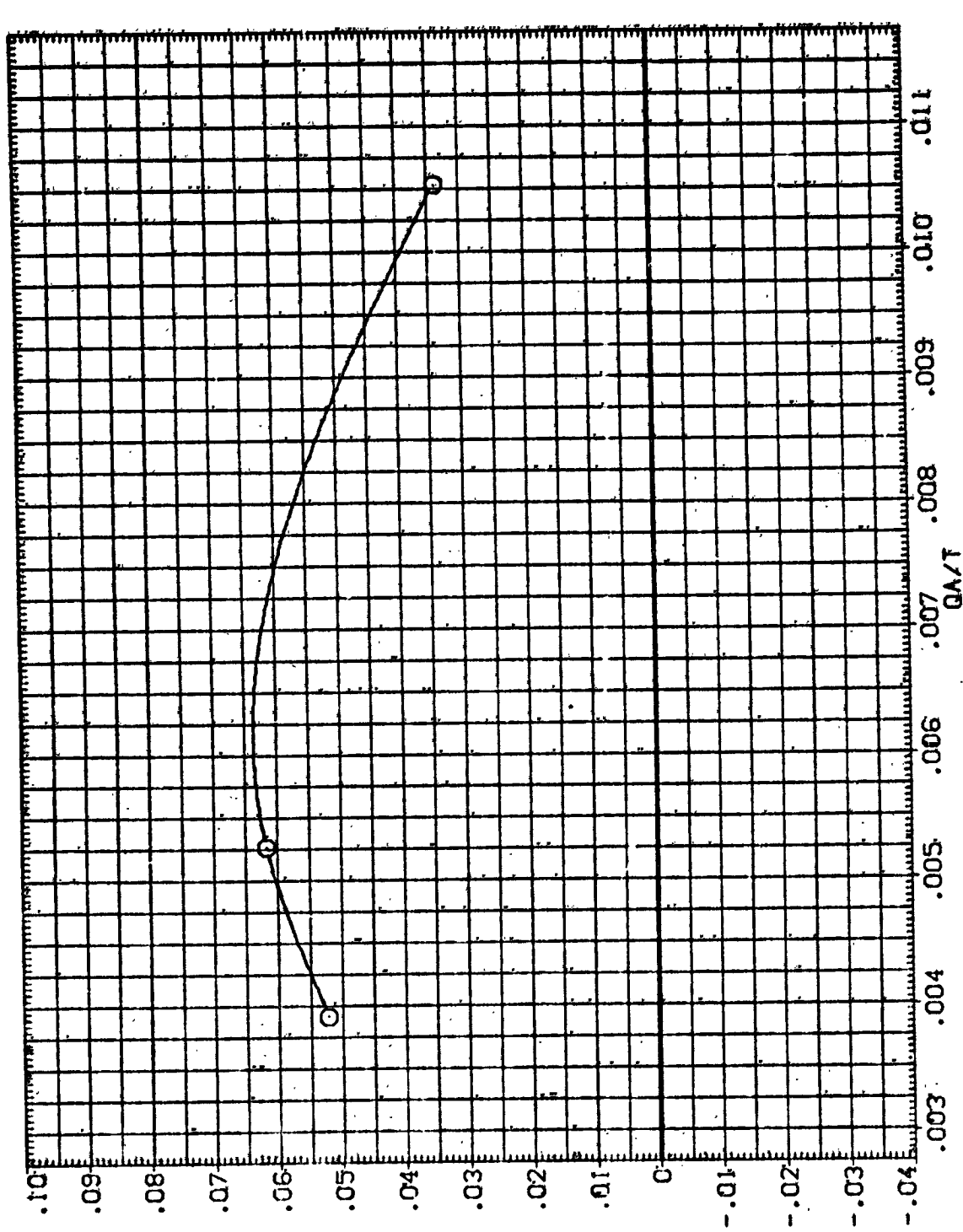


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(E)ALPHA = 35.00

DATA SET SYMBOL: 01N95N85
 CONFIGURATION DESCRIPTION: LARC CFHF 118 (NA-22)
 ELEVON: .000
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100



RCS JET AMPLIFICATION FACTOR - YAW, NCM

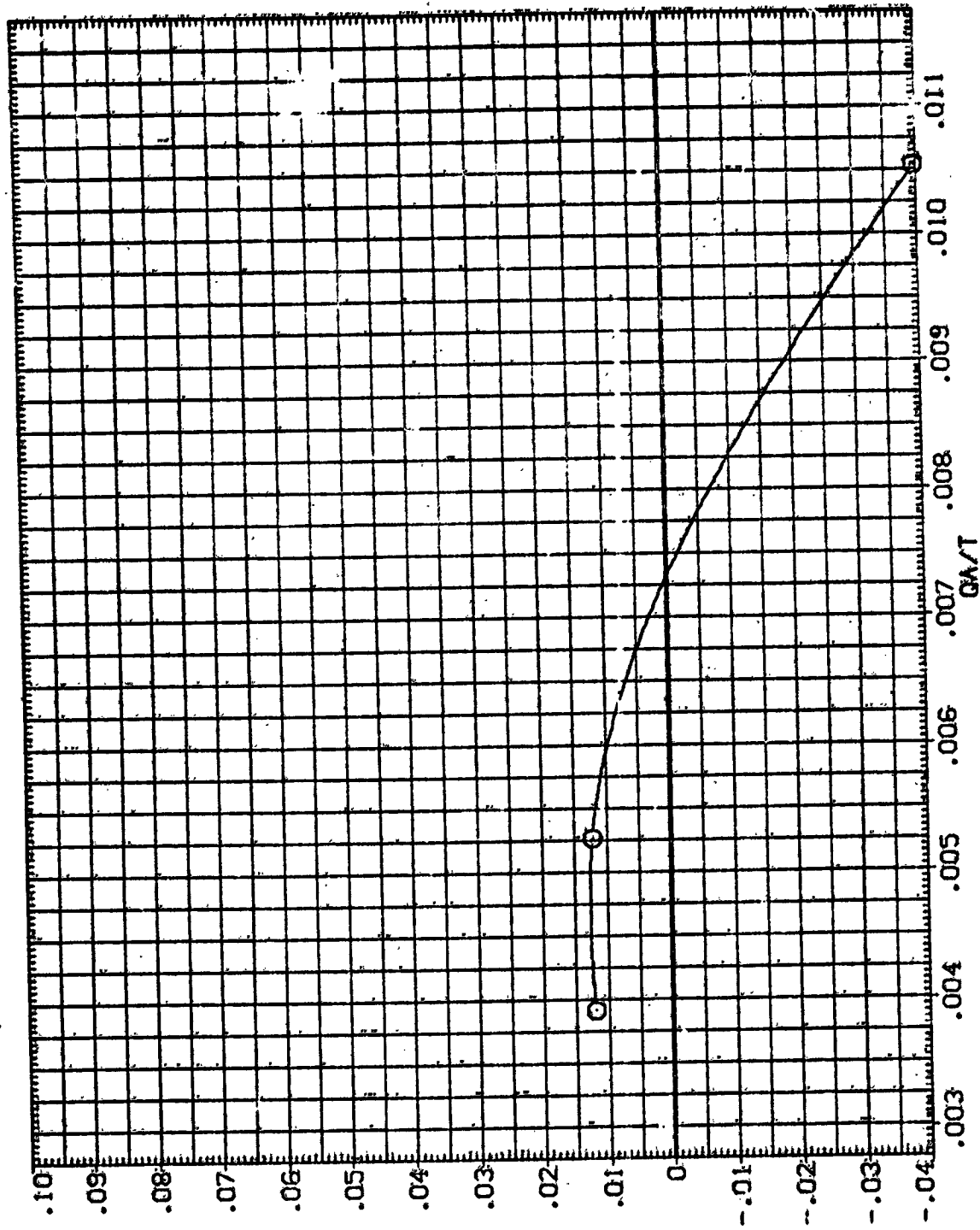
FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(AJALPHA = -8.00)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA010) O 0108550 LARC CFT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA
.000 2.000 .000 .000

REFERENCE INFORMATION
SREF 2690.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 938.6800 INCHES
XMRP 10.6.7800 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0180



RCS JET AMPLIFICATION FACTOR - YAW, NCM)

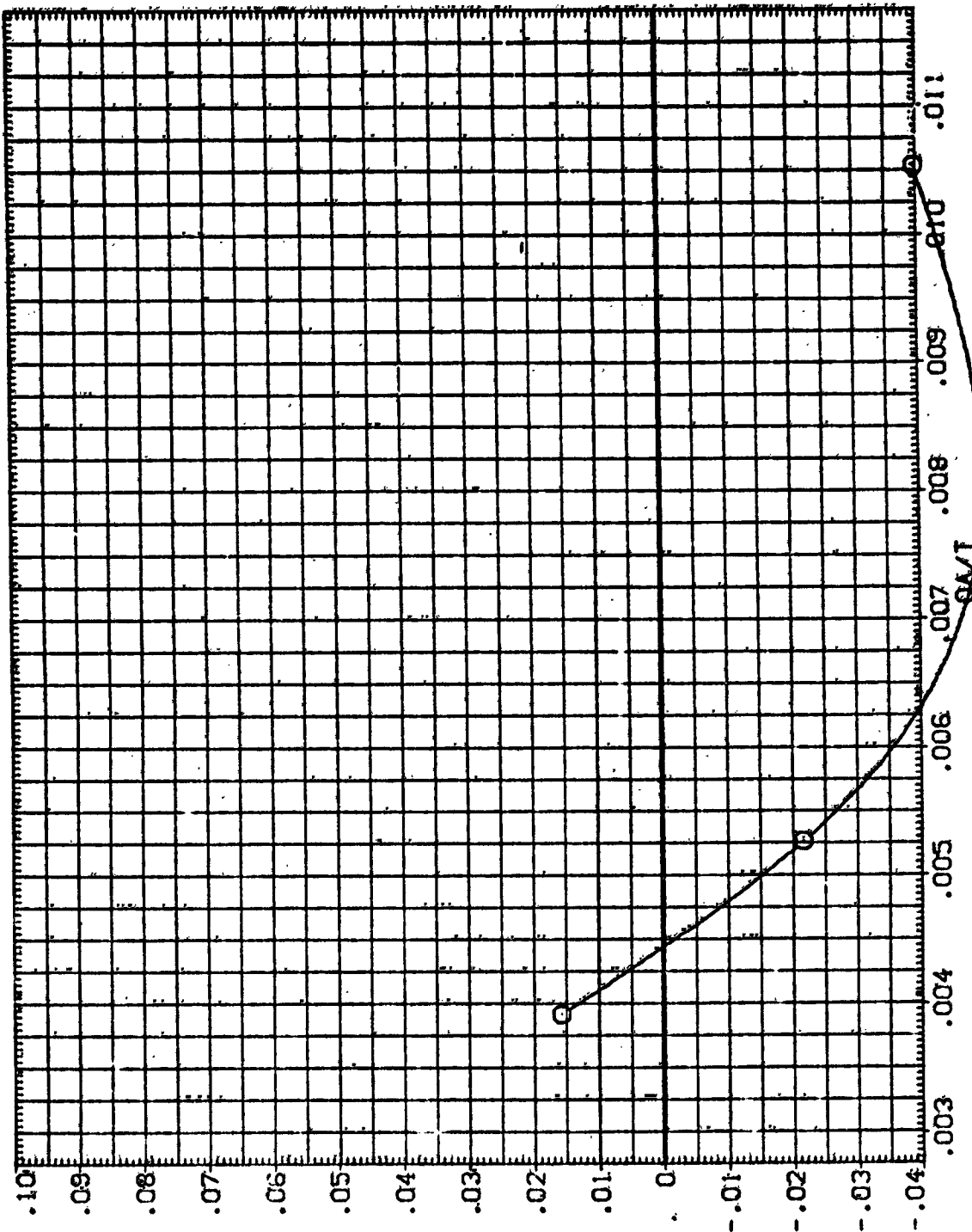
FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(B) ALPHA = .00

DATA SET SYMBOL (SJA010.) \bigcirc CONFIGURATION DESCRIPTION 01N85N50 LARC CFHT 118 (MA-22)

ELEVON .080 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.8000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.5800 IN. XD
 XREF 1876.7800 IN. XD
 YREF .0000 IN. YD
 ZREF 375.0000 IN. ZD
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, (YMD)

FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(C) ALPHA = 10.00

REFERENCE INFORMATION

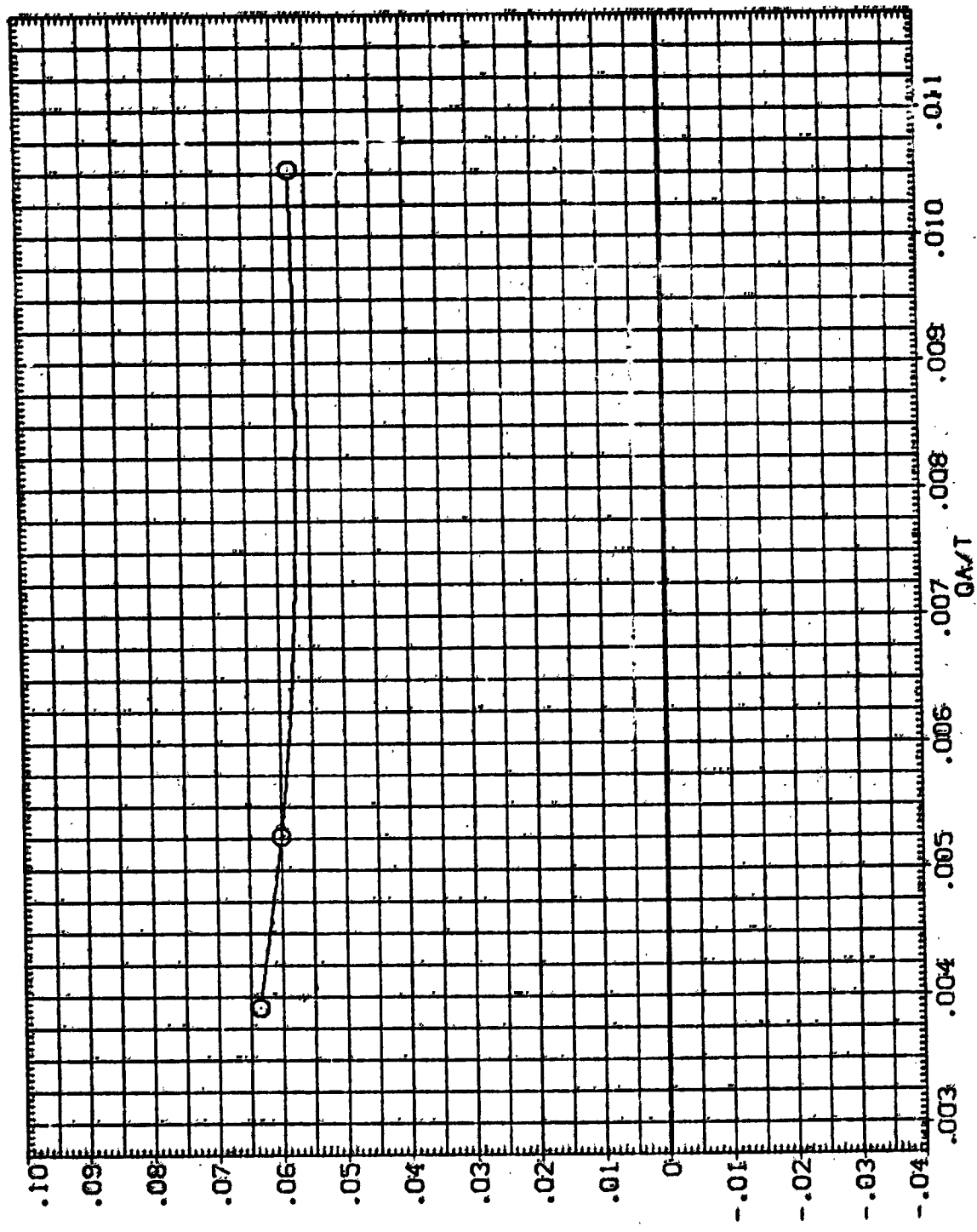
SREF	2690.0000	SO.FT.
LREF	474.8800	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. 10
YMRP	.0000	IN. 10
ZMRP	375.0000	IN. 10
SCALE	.0100	

ELEVON NO. JET BOFLAP BETA

ELEVON	NO. JET	BOFLAP	BETA
.000	2.000	.000	.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(SJA0101) O 01085N50 LARC CFMT 1:18 CMA-22)



RCS JET AMPLIFICATION FACTOR - YAW, NCM

FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(Q)ALPHA = 20.00

REFERENCE INFORMATION

SREF	2630.0000	SO. FT.
LREF	474.8000	INCHES
BREF	938.6800	INCHES
XMRP	1076.7000	IN. YD
YMRP	.0000	IN. YD
ZMRP	375.0000	IN. YD
SCALE	.0100	

ELEVON .000

NO. JET 2.000

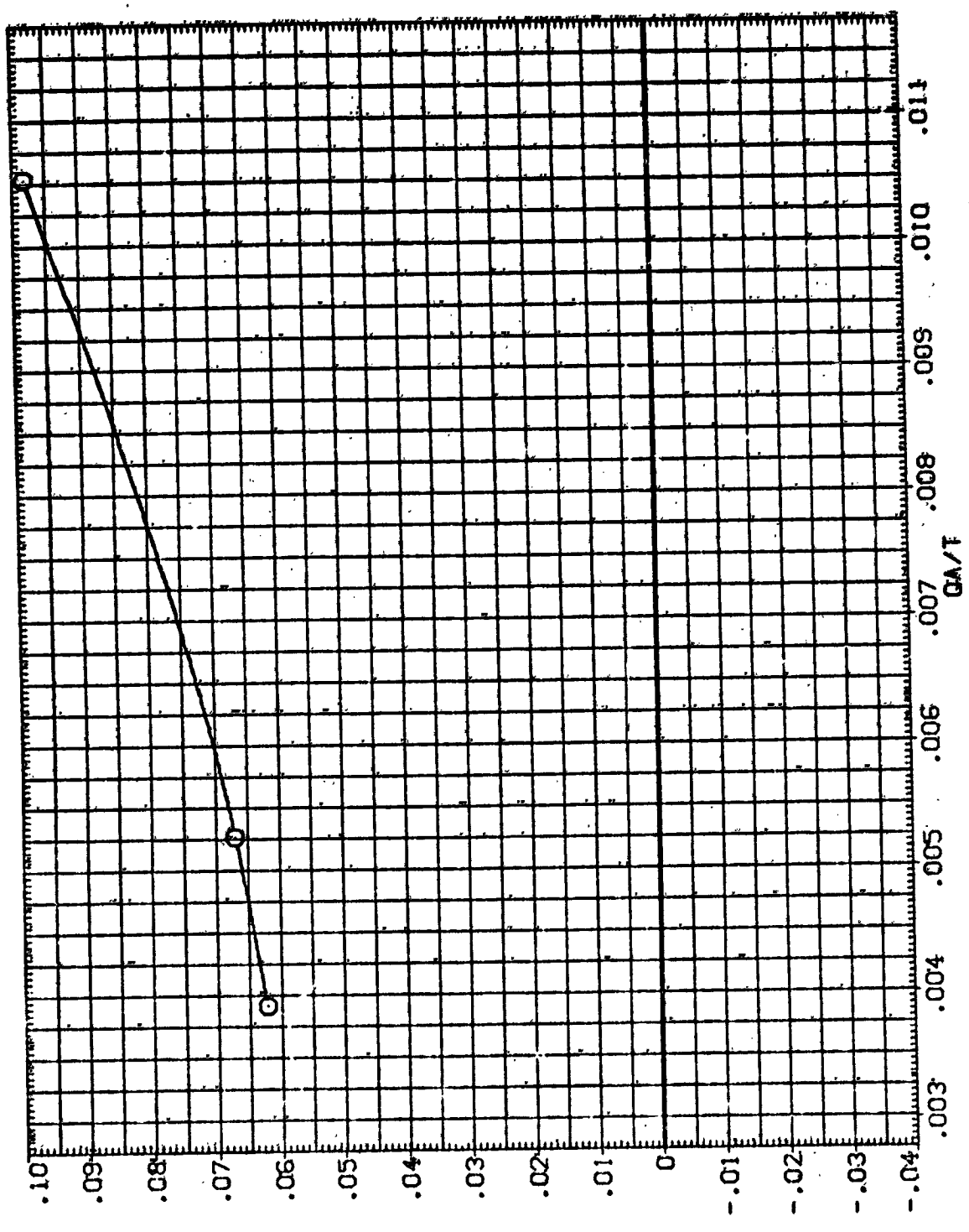
BD FLAP .000

BETA .000

DATA SET SYMBOL (SJA010) ○

CONFIGURATION DESCRIPTION

01085N50 LARC CFMT 118 (MA-22)



RCS JET AMPLIFICATION FACTOR - YAW, NCRM)

FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(E)ALPHA = 35.00

DATA SET SYMBOL: Q1885N50
 CONFIGURATION DESCRIPTION: LARC CPMT 118 8PA-221

ELEVON NO. JET BDFLAP BETA
 .000 2.000 .000 .000

REFERENCE INFORMATION:
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1026.7000 IN. X
 YREF .0000 IN. Y
 ZREF 375.0000 IN. Z
 SCALE .0100

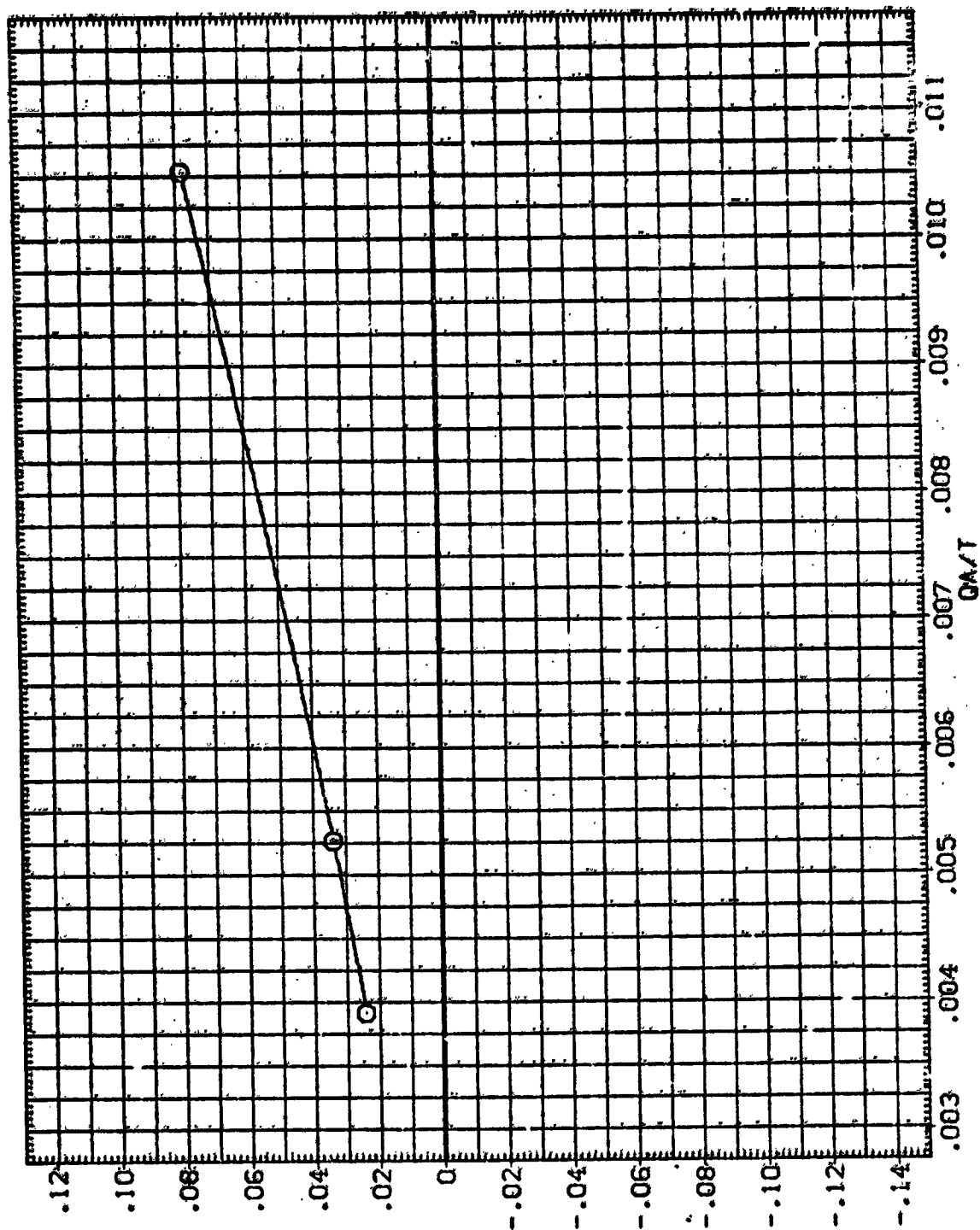


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(A) ALPHA = -8.00

DATA SET SYMBOL (SJA010) O CONFIGURATION DESCRIPTION (MA-221)

ELEVON .000 NO. JET 2.000 20FLAP .000 BETA .000

REFERENCE INFORMATION

SREF	2690.0000	SO.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	375.0000	IN. Z0
SCALE	.0100	

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

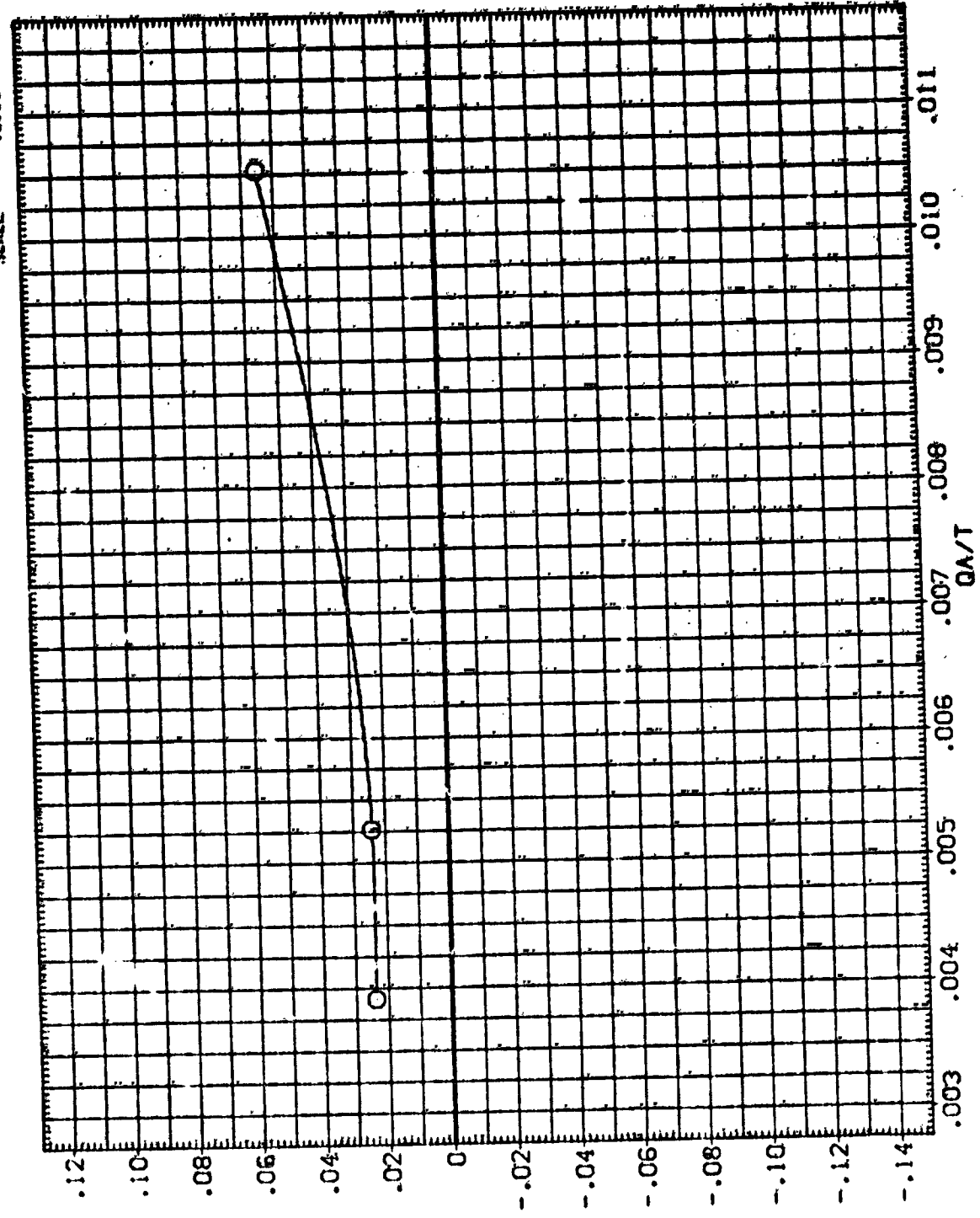


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(BJALPHA = .00

DATA SET SYMBOL: O
 (SJA010.)

CONFIGURATION: DESCRIPTION

OUNB500 LARC CFHT 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.2000 SQ. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6000 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 395.0000 IN. Z0
 SCALE: .0100

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NCSF

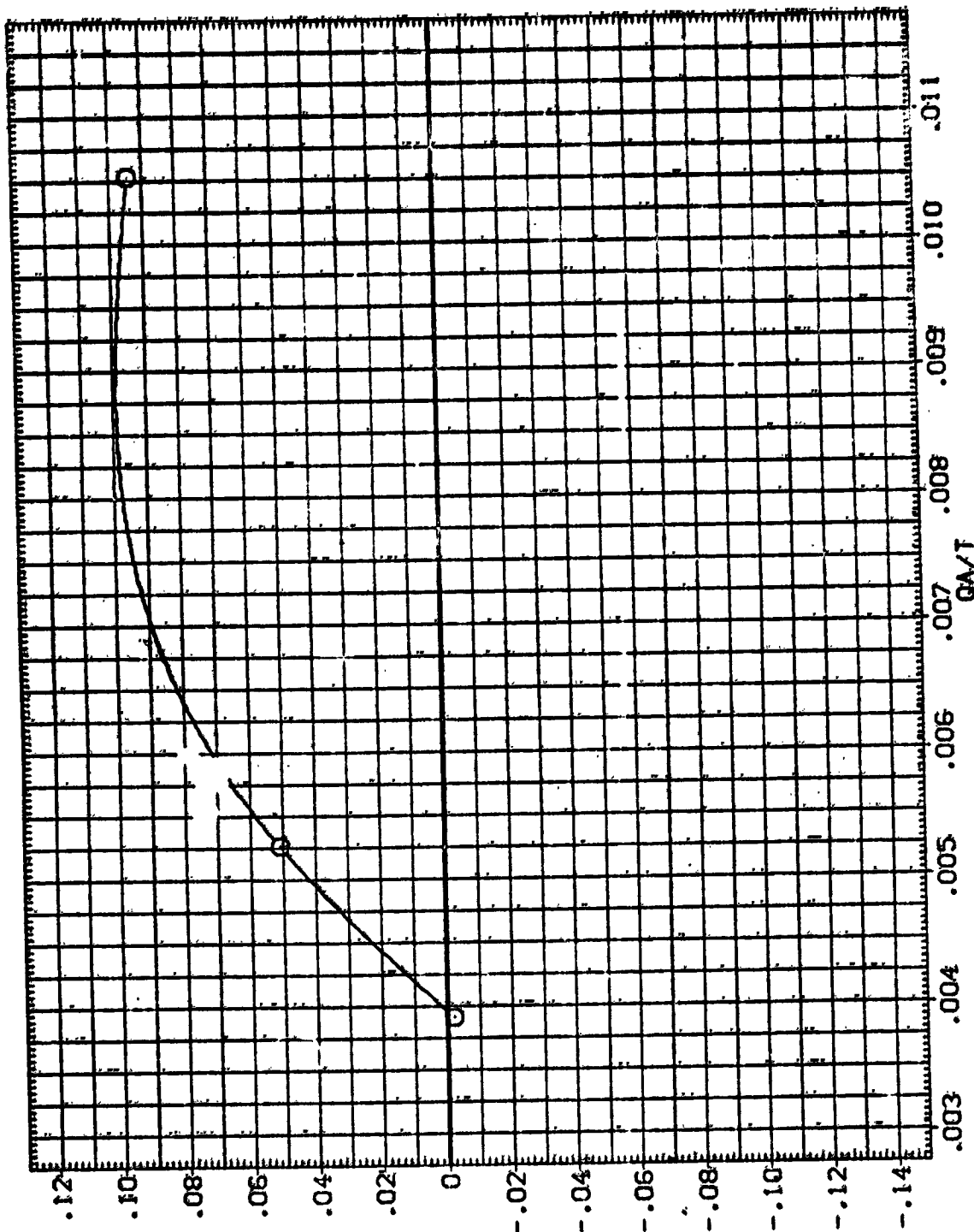


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(C)ALPHA = 10.00

DATA SET SYMBOL (SJA010) O ONBEN50 LARC CFHT 118 (M-22)

ELEVON .000 NO-JET 2.000 BBLAP .000 BETA .000

REFERENCE INFORMATION

REF	2850.0000	SO. FT.
LREF	474.8000	INCHES
BREF	935.5800	INCHES
XREF	1076.7000	IN. X
YREF	.0000	IN. Y
ZREF	395.0000	IN. Z
SCALE	.0100	

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

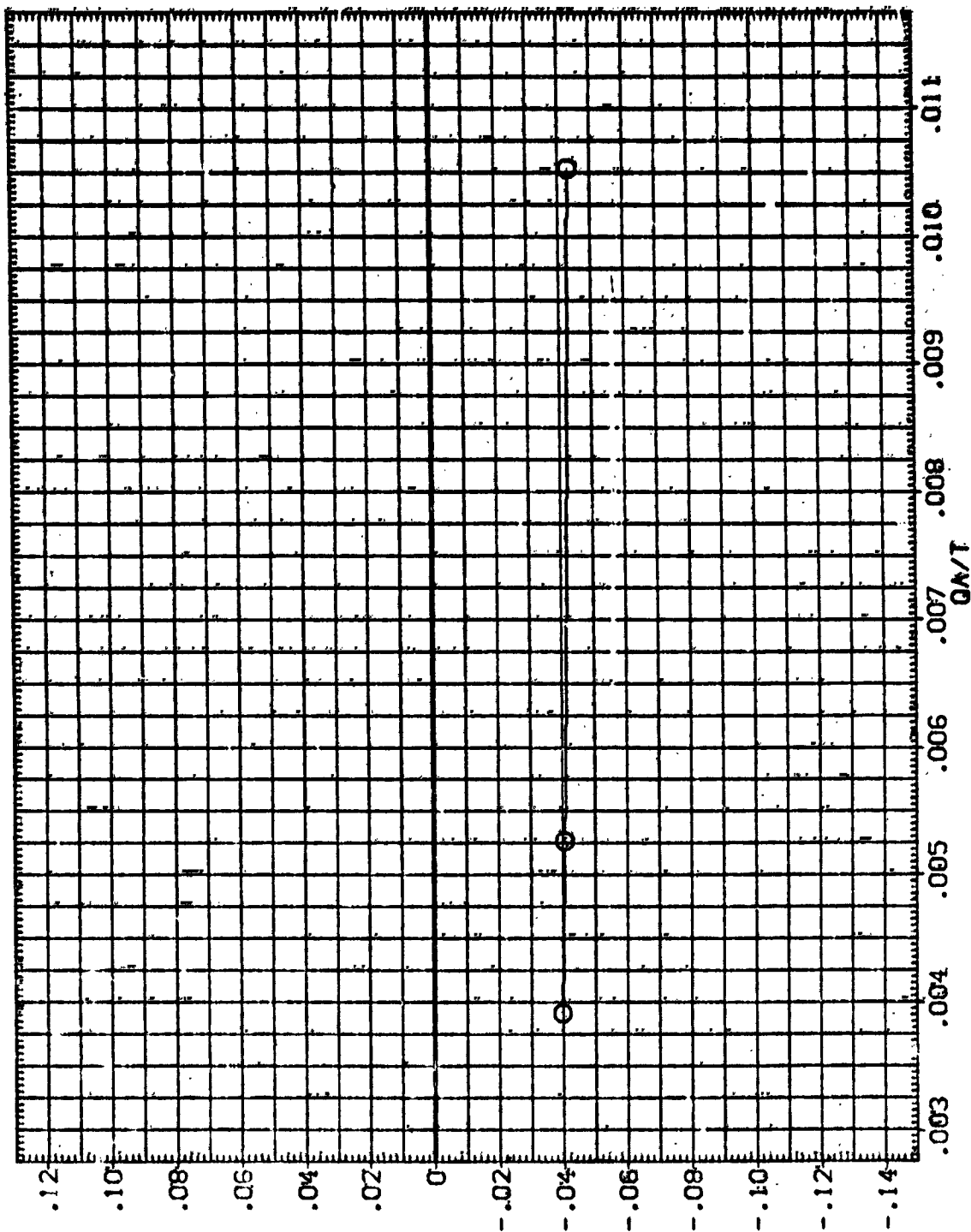


FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(DIALPHA = 20.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA010) 0 01N85N85 LARC CFMT 118 CHA-223

ELEVON .000 NO. JET 2.800 80FLAP .008 YETA .000
 REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0800 IN. Z0
 SCALE .0100

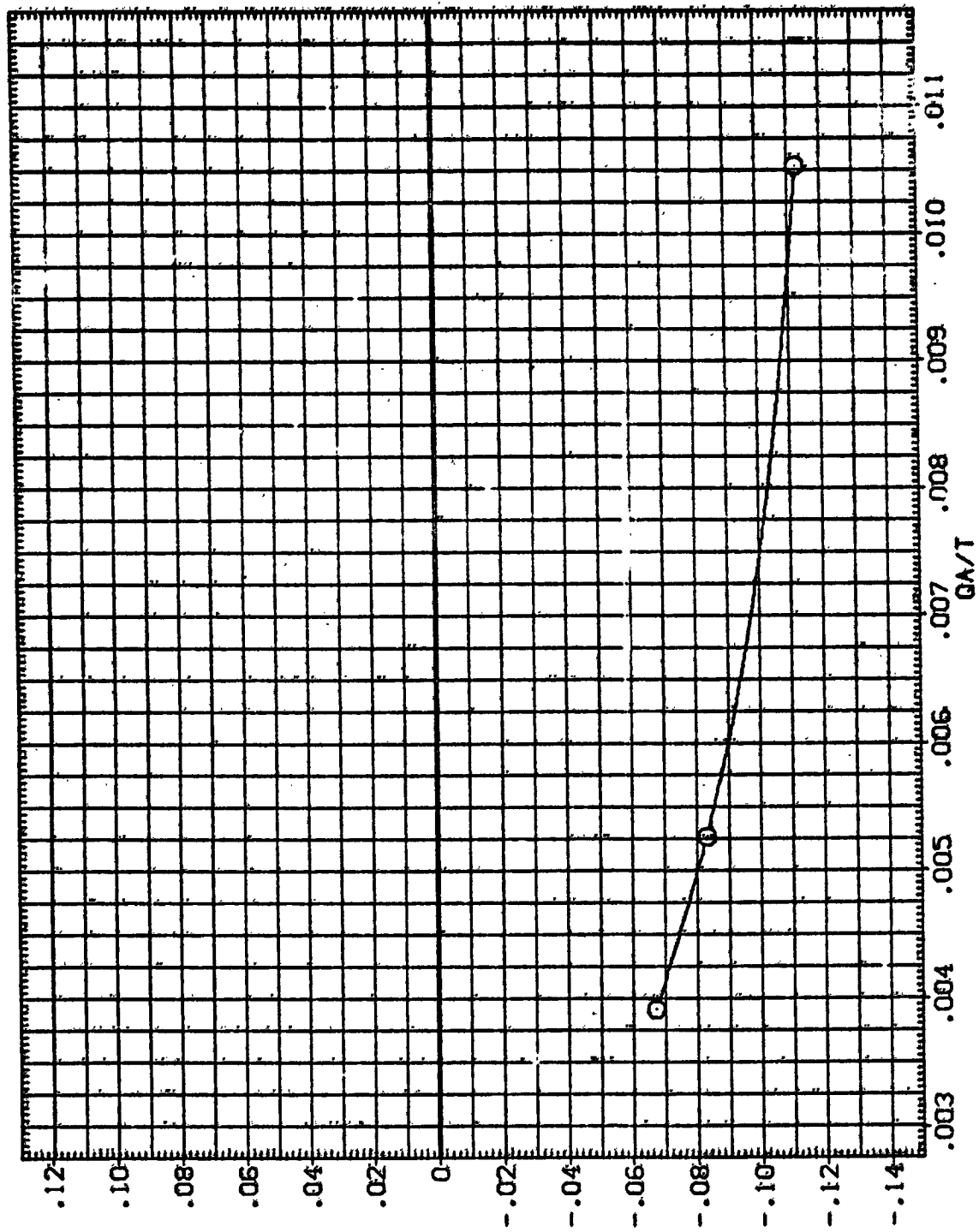


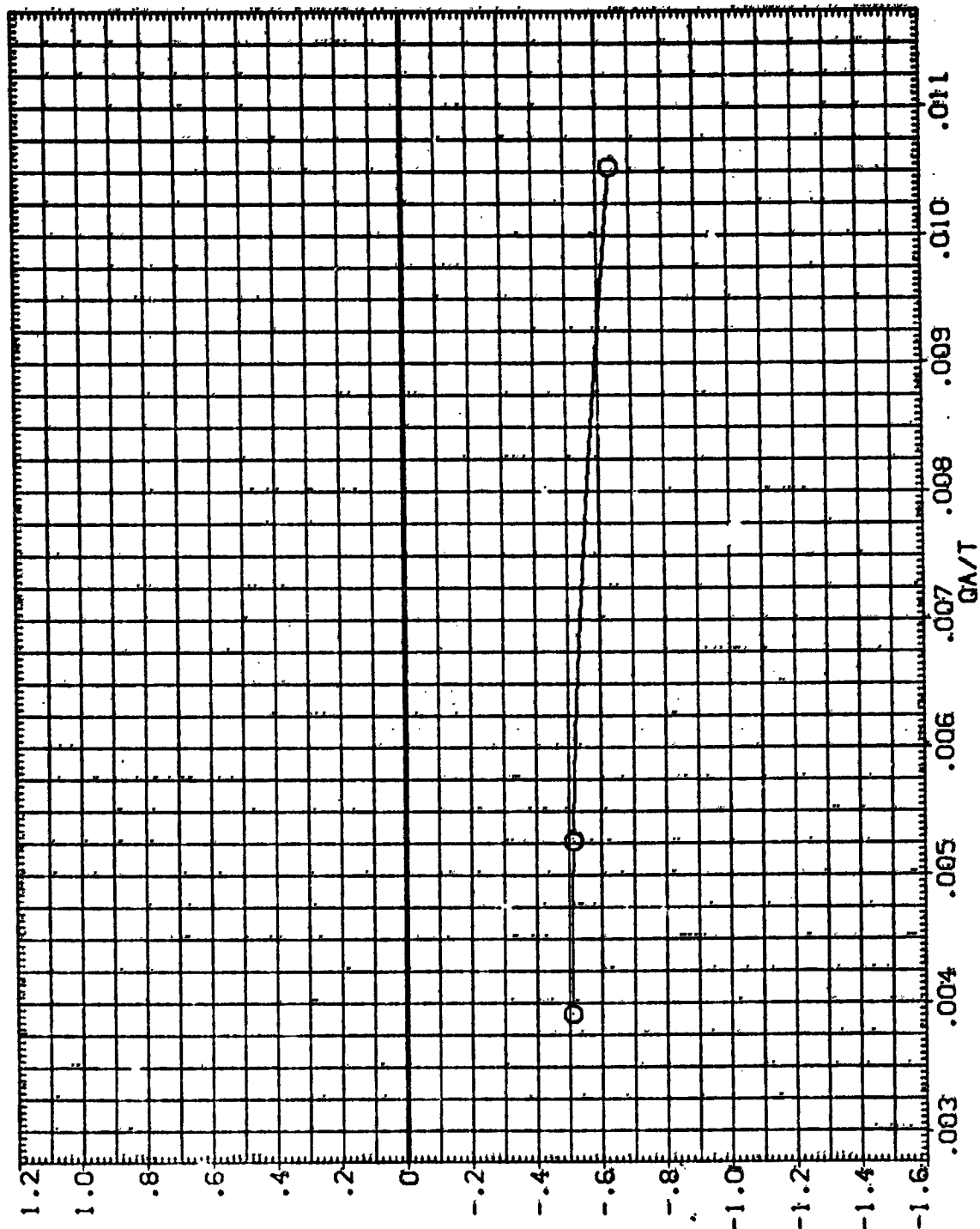
FIGURE 29. AMPLIFICATION FACTORS FOR JETS N50N85

(E)ALPHA = 35.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA011) Q1N84 LARC CFHT 118 6MA-22)

ELEVON .000 NO-JET 2.000 BDFLAP .000 BETA .000

REFERENCE INFORMATION
SREF 2650.0000 SO.FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0160



RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(A) ALPHA = -8.00

DATA SET SYMBOL: 01N84
 CONFIGURATION DESCRIPTION: LARC CFME 1:18 (MA-22)

ELEVATION: .000
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 926.6800 INCHES
 XRRP: 1076.7000 IN. X0
 YRRP: .0000 IN. Y0
 ZRRP: 375.0000 IN. Z0
 SCALE: .0100

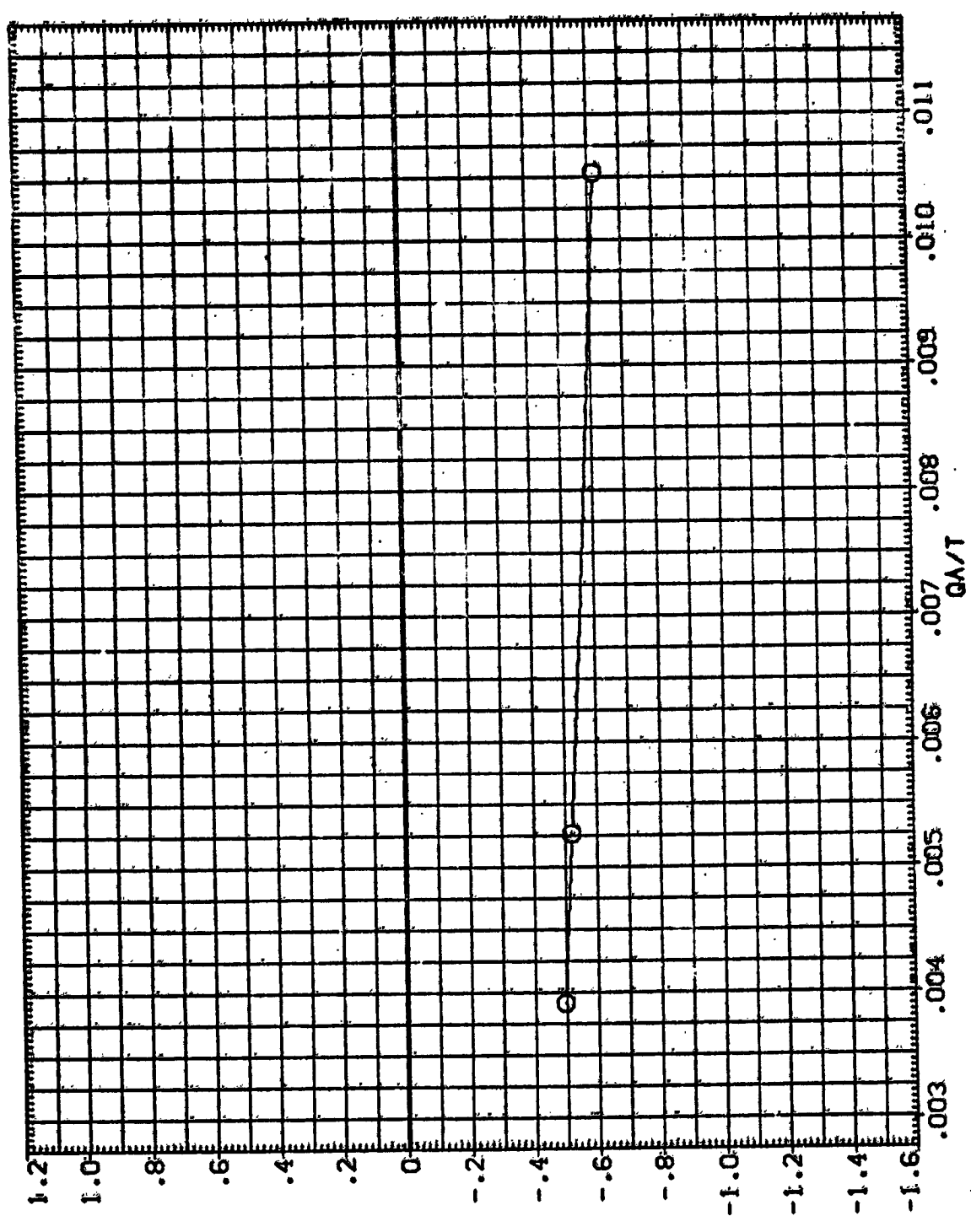
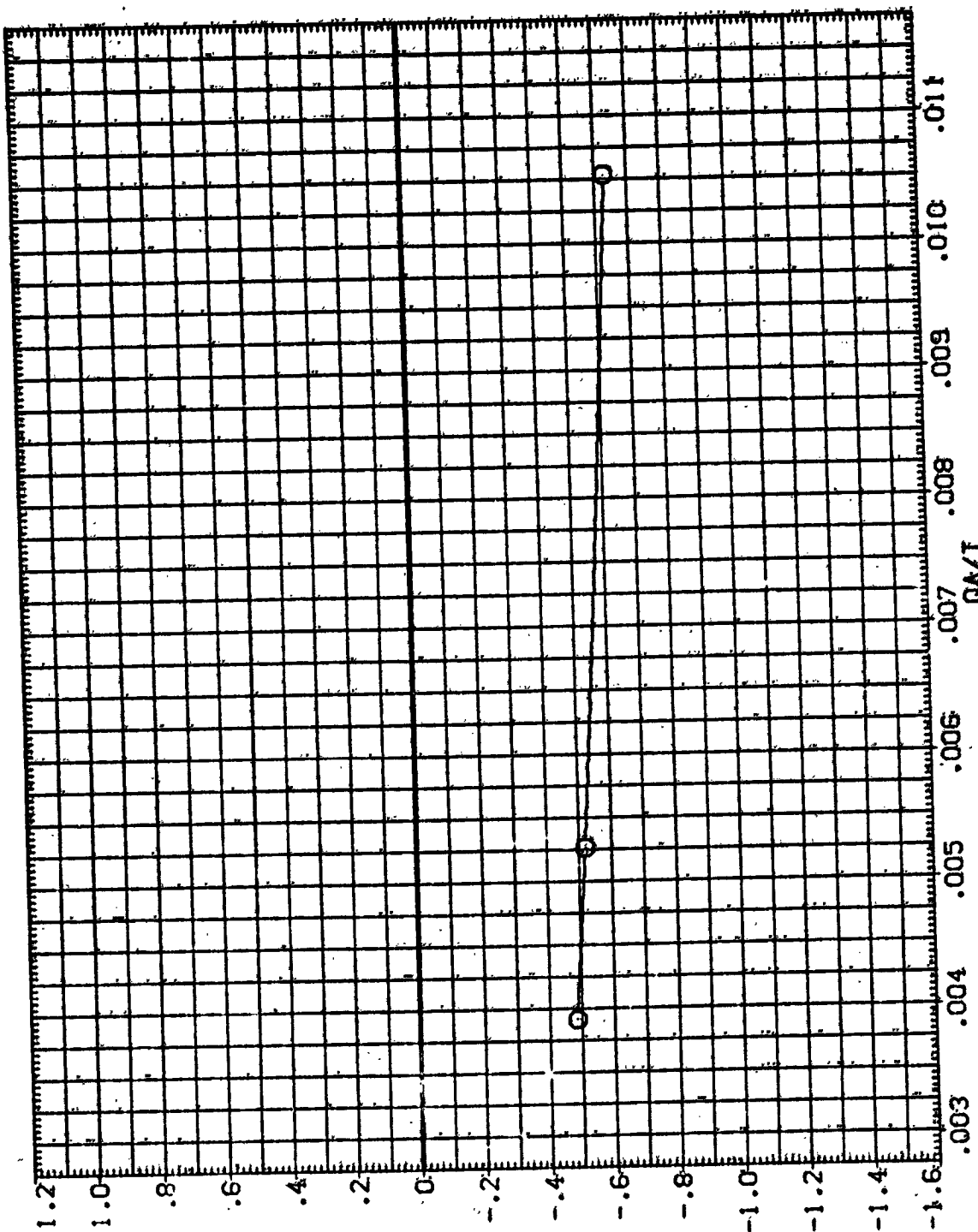


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(B)ALPHA = -6.00

DATA SET SYMBOL (SL0011) \bigcirc C1N84
 CONFIGURATION DESCRIPTION LARG CFHT 118 (MA-22J)
 ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000
 REFERENCE INFORMATION
 SREF 2690.0000 SD-FT. 2690.0000
 LREF 474.8000 INCHES 474.8000
 BRFP 936.6800 INCHES 936.6800
 XMRP 1876.7000 IN. 1876.7000
 YMRP .0000 IN. 0.0000
 ZMRP 375.0000 IN. 375.0000
 SCALE .0100



RCS JET AMPLIFICATION FACTOR = NORMAL FORCE, N(NF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(C)ALPHA = -4.00

DATA SET SYMBOL: 01N84
 CONFIGURATION DESCRIPTION: LARC CENT 118 (PA-22)

ELEVON: .008
 NO. JET: 2.000
 BOFLAP: .090
 BETA: .090

REFERENCE INFORMATION:
 SREF: 2650.0000 SO.F.F.
 LREF: 474.8000 INCHES
 BREF: 936.6000 INCHES
 YMRP: 1076.2000 IN. YC
 ZMRP: 373.0000 IN. ZC
 SCALE: .0100

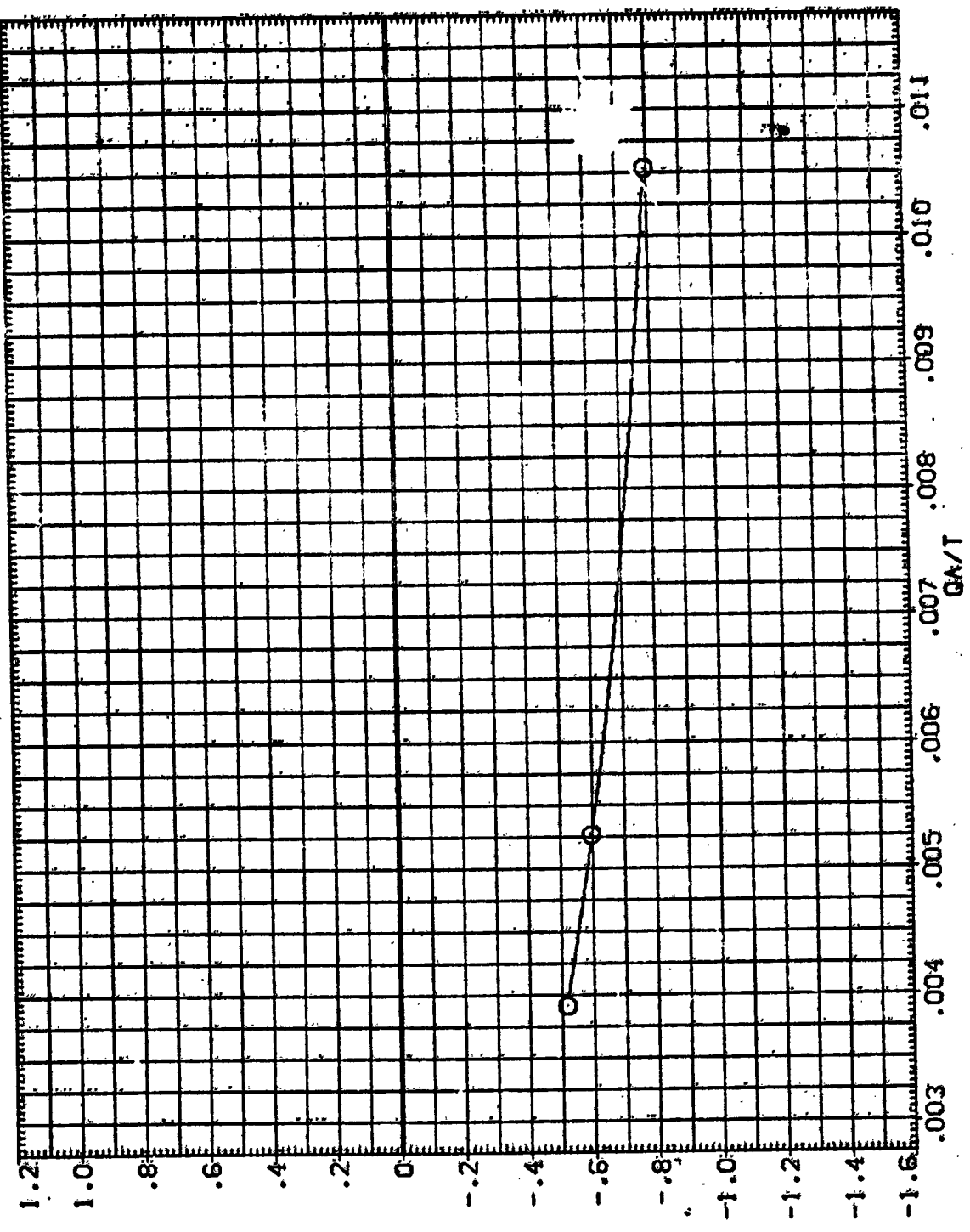


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(C) ALPHA = -2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(S1A011) Q 01N84 LARC CFMT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA
.000 2.000 .000 .000

REFERENCE INFORMATION
SREF 2690.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. KG
YMRP .0000 IN. YG
ZMRP 373.0000 IN. ZG
SCALE .0100

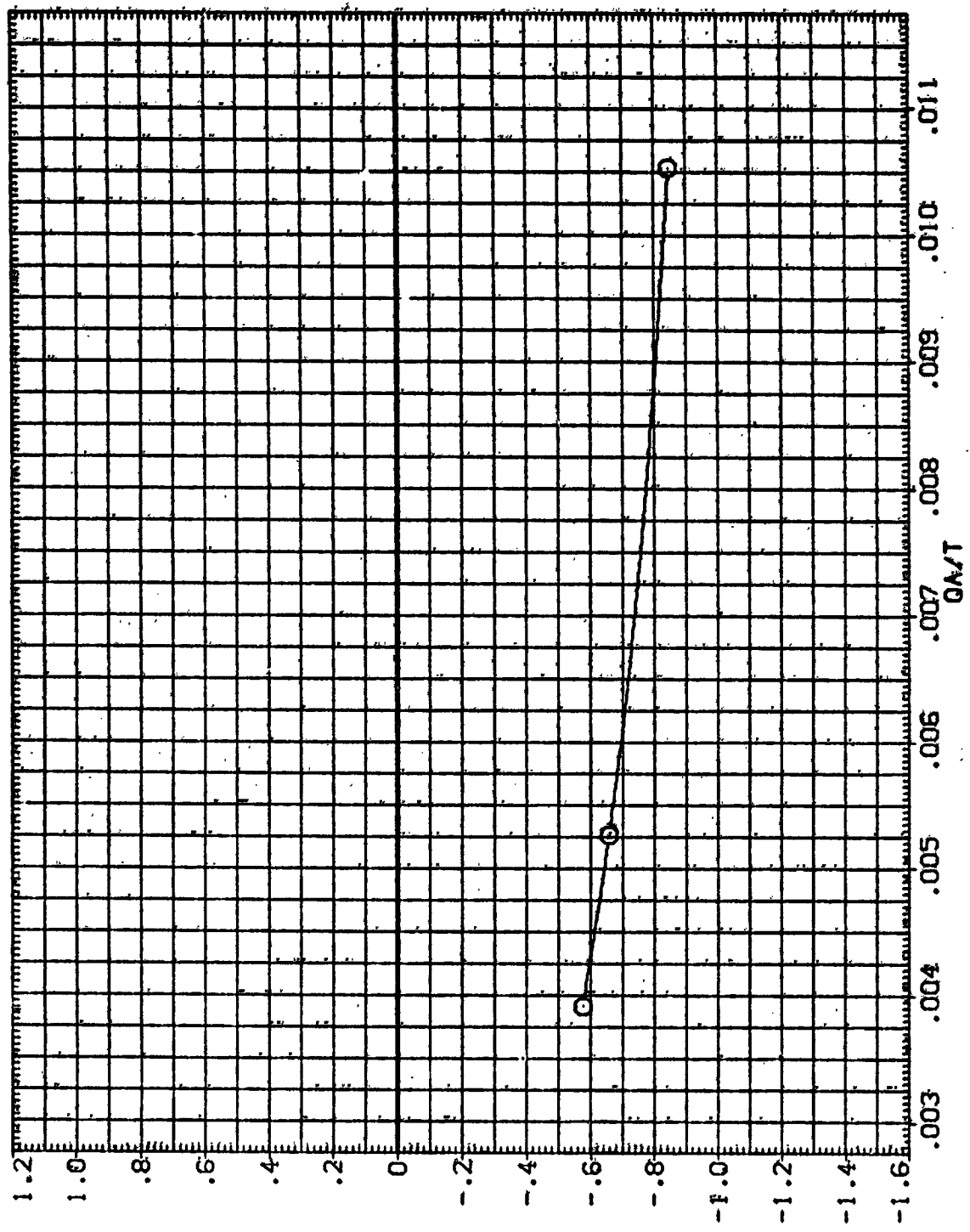


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(E)ALPHA = .00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SYMBOL) O Q1N84 LARC CFHI 118 (MA-22)

ELEVON NO. JET BDFLAP BETA
.000 2.000 .090

REFERENCE INFORMATION
SREF 2650.0000 SQ. FT.
LREF 424.8000 INCHES
BREF 936.6800 INCHES
XPRP 1076.2000 IN. X
YPRP 1000.0000 IN. Y
ZPRP 375.0000 IN. Z
SCALE .0400

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

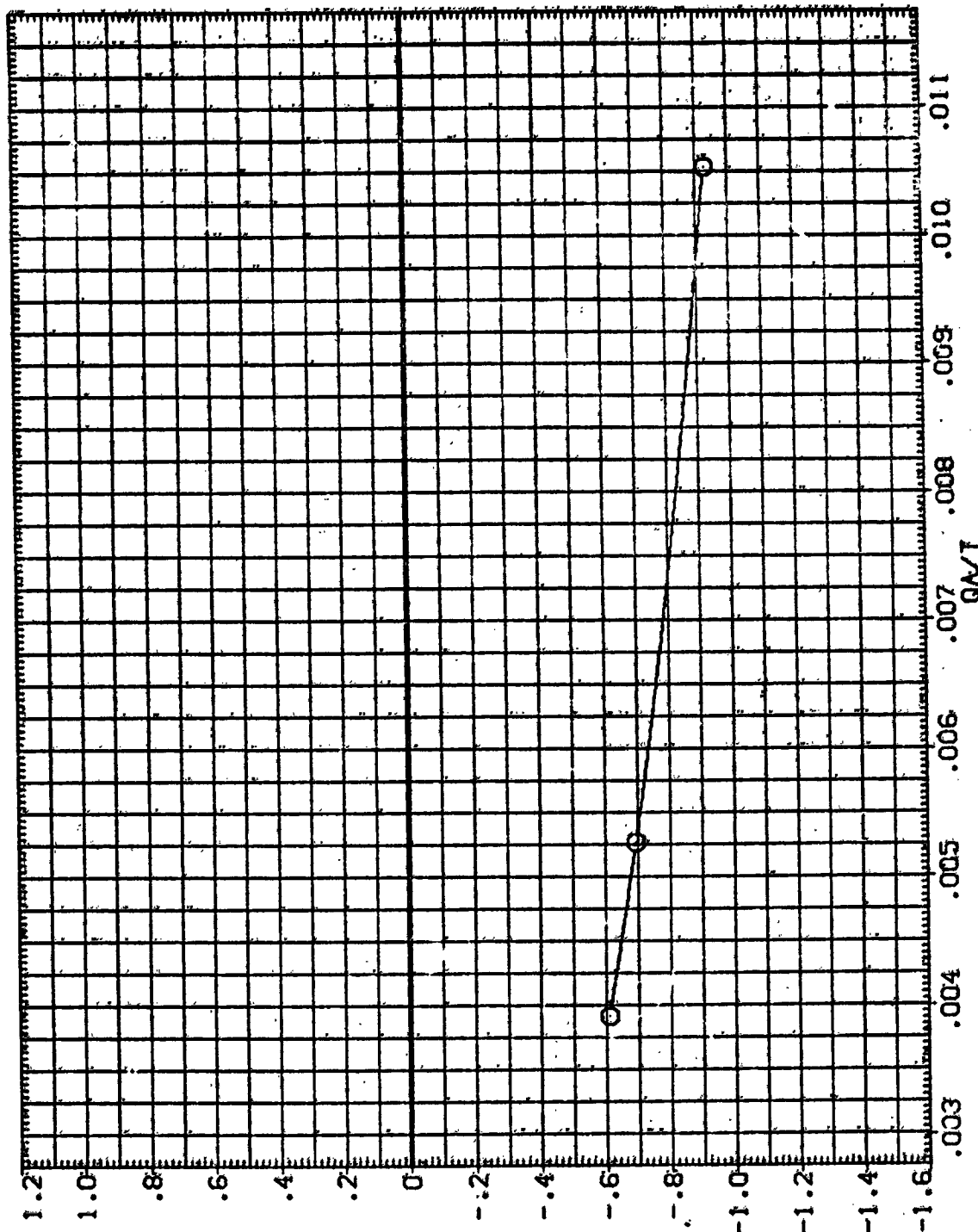


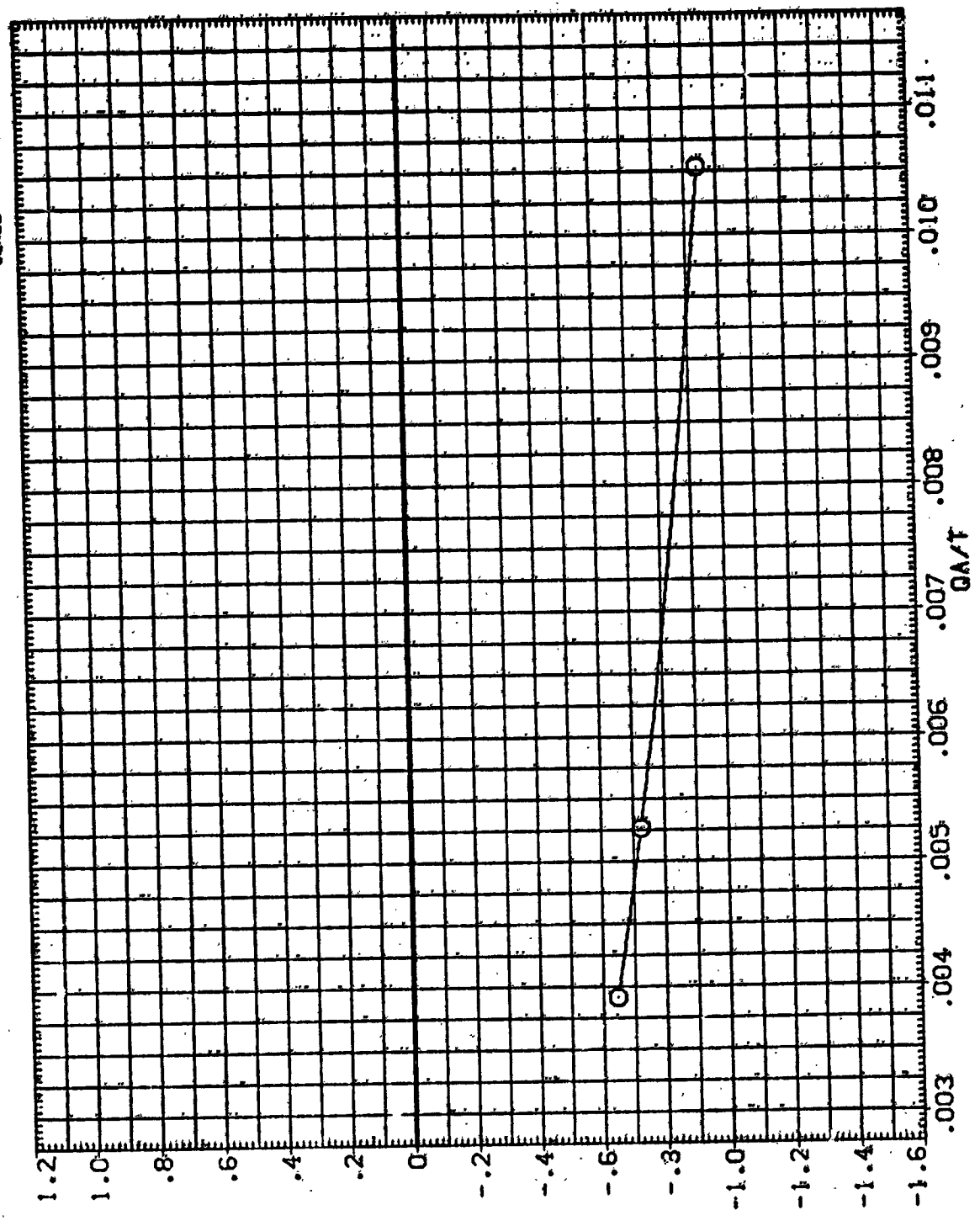
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(F) ALPHA = 2.00

DATA SET SYMBOL: 01N84
 CONFIGURATION: LARC CFT 118 (MA-221)

ELEVON NO. JET 2.000
 BOFLAP .006
 BETA .008

REFERENCE INFORMATION:
 SREF 2690.0000 SO.FT.
 LREF 474.8000 INCHES
 BREF 936.5600 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(G)ALPHA = 4.00

DATA SET SYMBOL: 01N84
 CONFIGURATION DESCRIPTION: LARC CPNF 113 (MA-223)

ELEVON NO. JET: .000
 BDELAP: .000
 BETA: .000

REFERENCE INFORMATION
 SREF: 2690.0000
 LREF: 474.8000
 BREF: 936.6800
 X: 1076.7800
 YMRP: .0000
 ZMRP: 375.0000
 SCALE: .0100

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, (N/F)

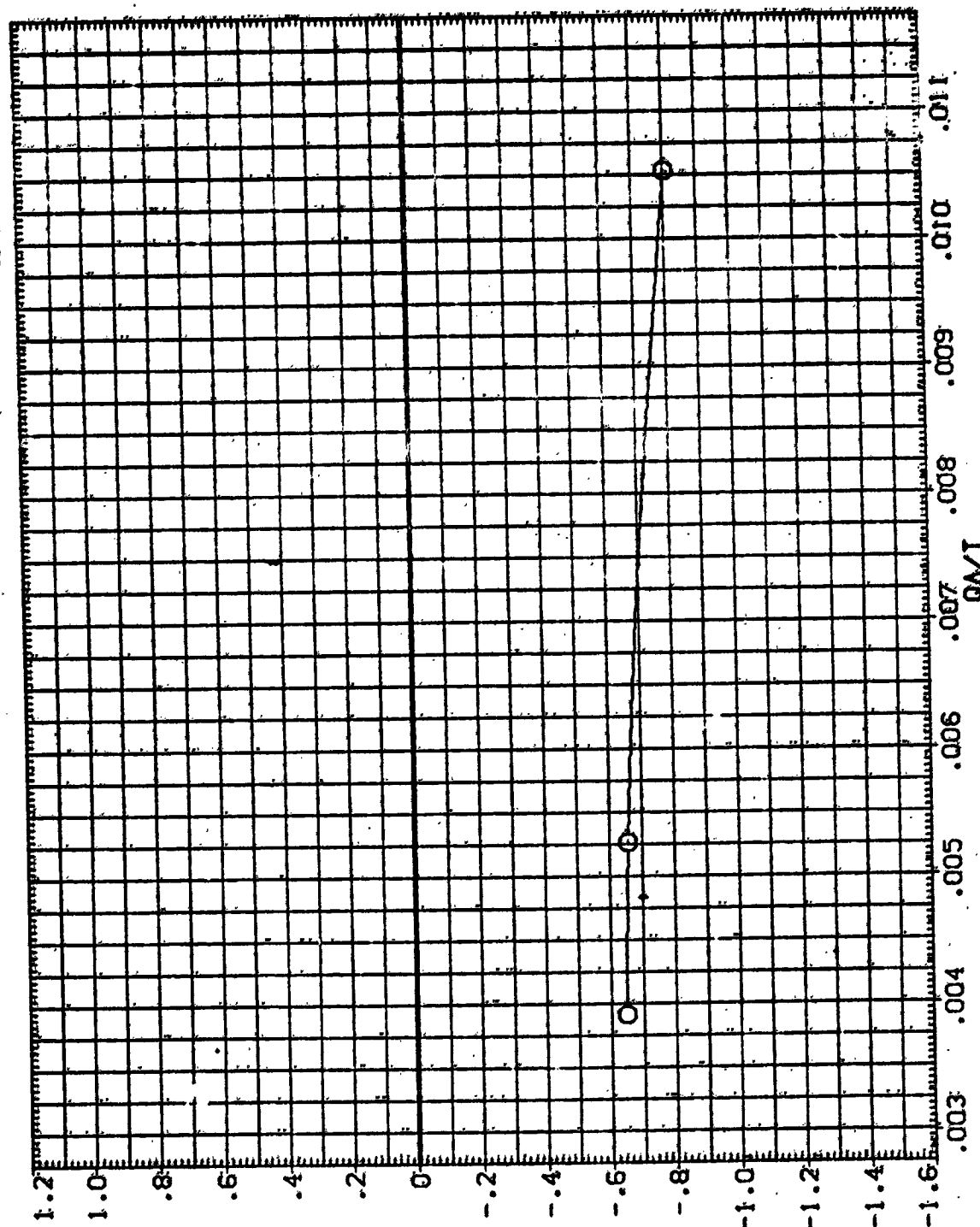


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(H) ALPHA = 6.00

DATA SET SYMBOL (STAG11) \odot QIN84

CONFIGURATION DESCRIPTION

LARC CFT 116 (MA-22)

ELEVON .000

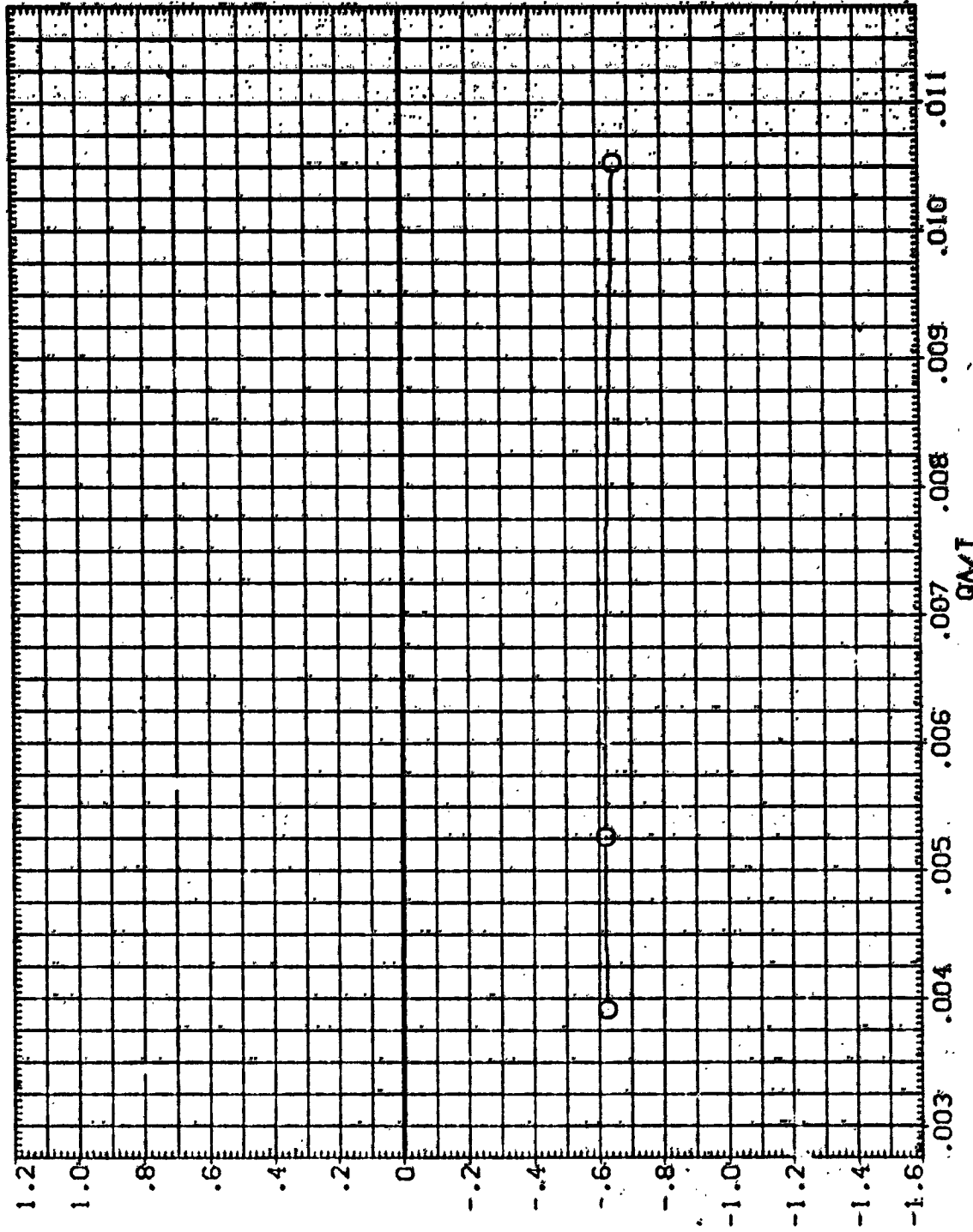
NO. JET 2.000

BOFLAP .000

BETA .000

REFERENCE INFORMATION

SREF 2690.0000 SQ.FT.
LREF 474.8000 INCHES
BREF 938.6800 INCHES
XMRP 1076.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100



RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(Γ)ALPHA = 8.00

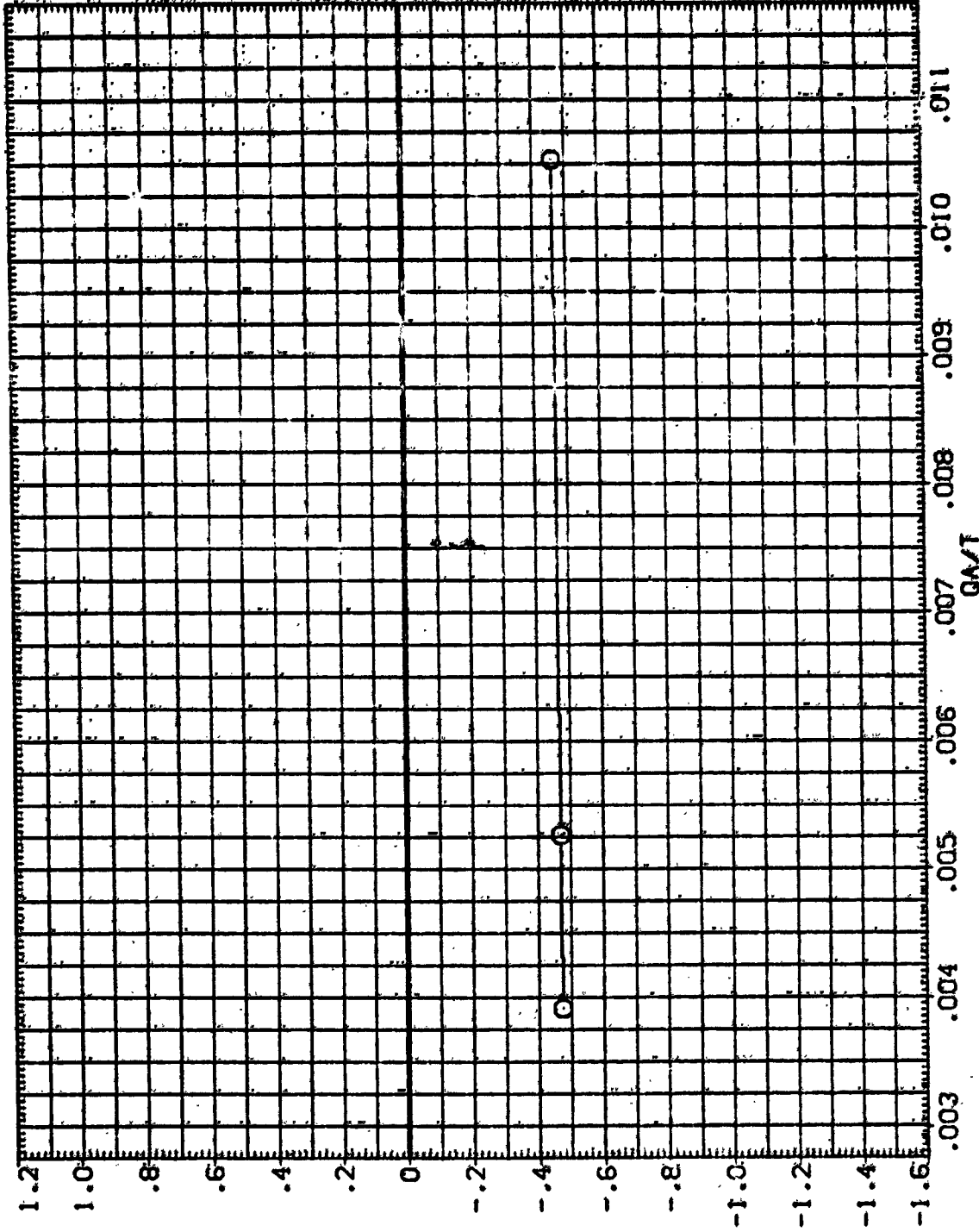
DATA SET SYMBOL (SJA011) ☐ QINBA

CONFIGURATION DESCRIPTION

LARC CFHT 118 (MA-22)

ELEVON .000 NO-JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 50.00
 LREF 474.8000 INCHES
 BREF 938.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

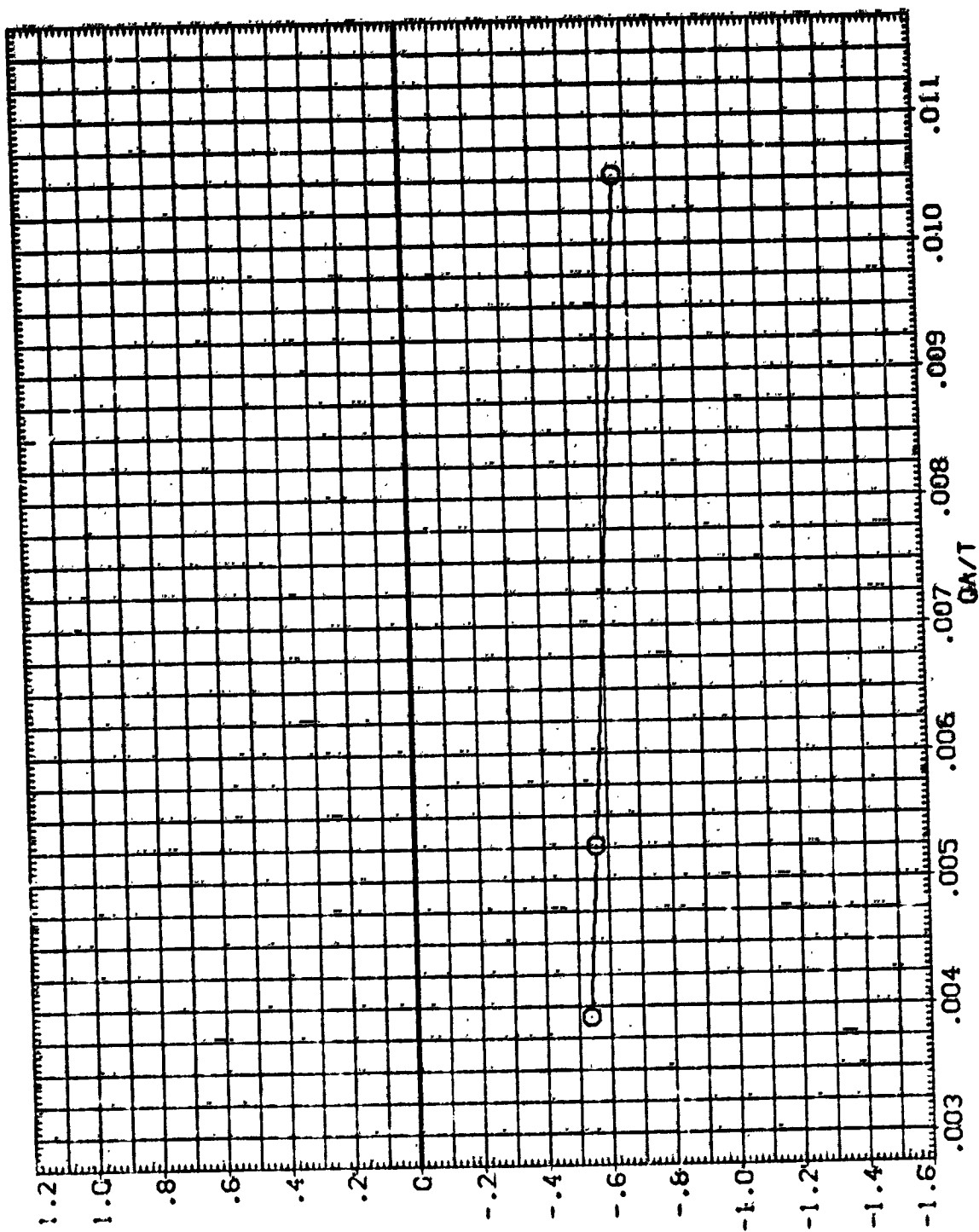


RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N/NF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(J)ALPHA = 10.00

DATA SET SYMBOL: 01N84
 CONFIGURATION: LARC CFMT 118 (NA-22)
 ELEVATION: .000
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000
 REFERENCE INFORMATION:
 SQ. FT.: 2690.0000
 INCHES: 474.8000
 LREF: 936.6800
 BREF: 1076.7000
 XTRP: .0000
 YTRP: 375.0000
 ZTRP: .0100
 SCALE: .0100



RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(K)ALPHA = 15.00

DATA SET SYMBOL (SJAQ11) \emptyset GIN84

CONFIGURATION DESCRIPTION

LARC CFMT 118 (MA-22)

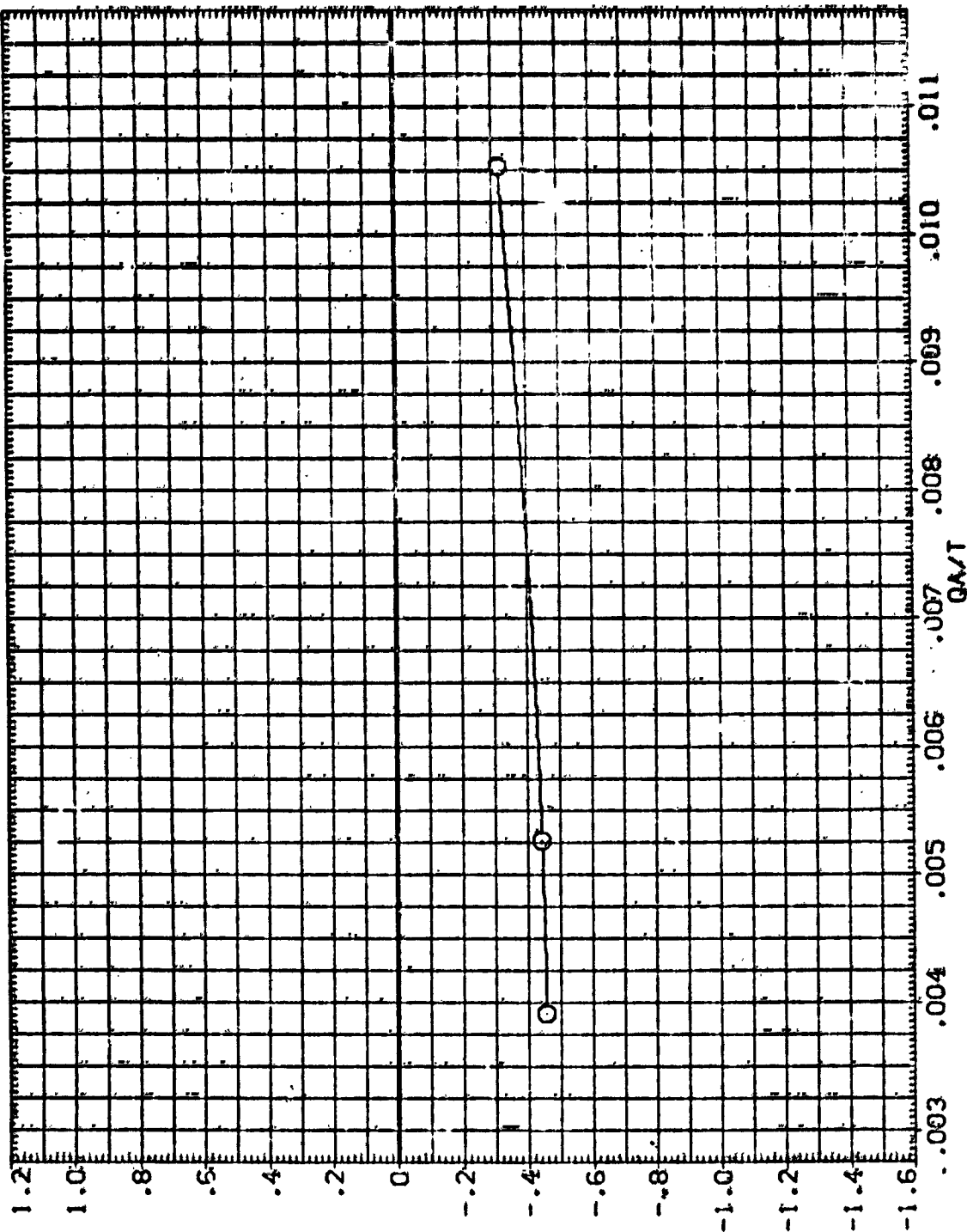
ELEVON .000

NO. JET 2.000

BDPLAP .000

BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 50. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7000 IN. 40
 YREF .0800 IN. 10
 ZREF 375.0000 IN. 20
 SCALE .0100



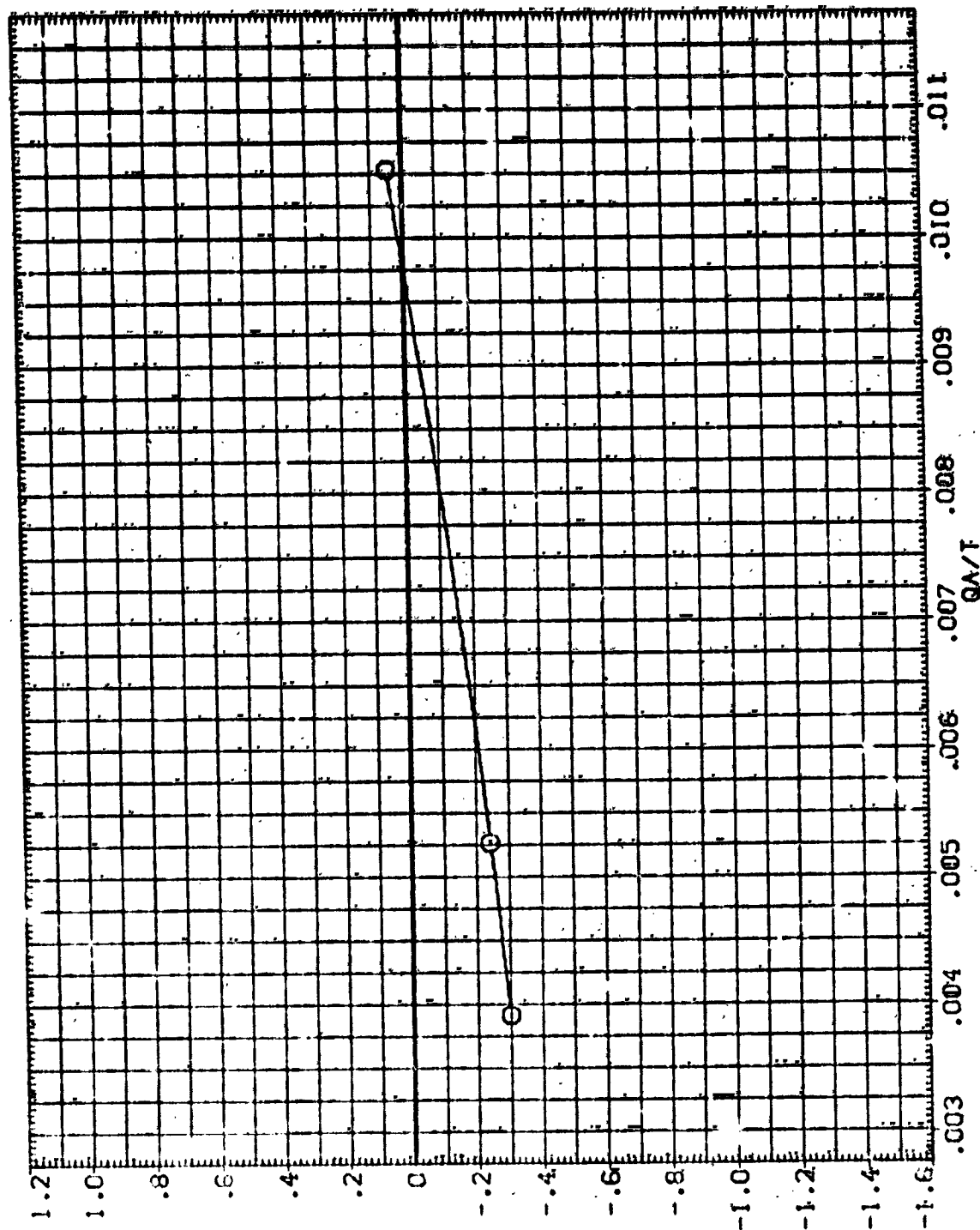
RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(L)ALPHA = 20.00

DATA SET SYMBOL: 01111
 CONFIGURATION: LARC CFHT 118 (NA-22)
 REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XREF: 1076.7000 IN. 40
 YREF: .0000 IN. 40
 ZREF: 373.0000 IN. 20
 SCALE: .0100

ELEVON: .000
 NO. JET: 2.000
 BDFLAP: .000
 BETA: .000



RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, (N/F)

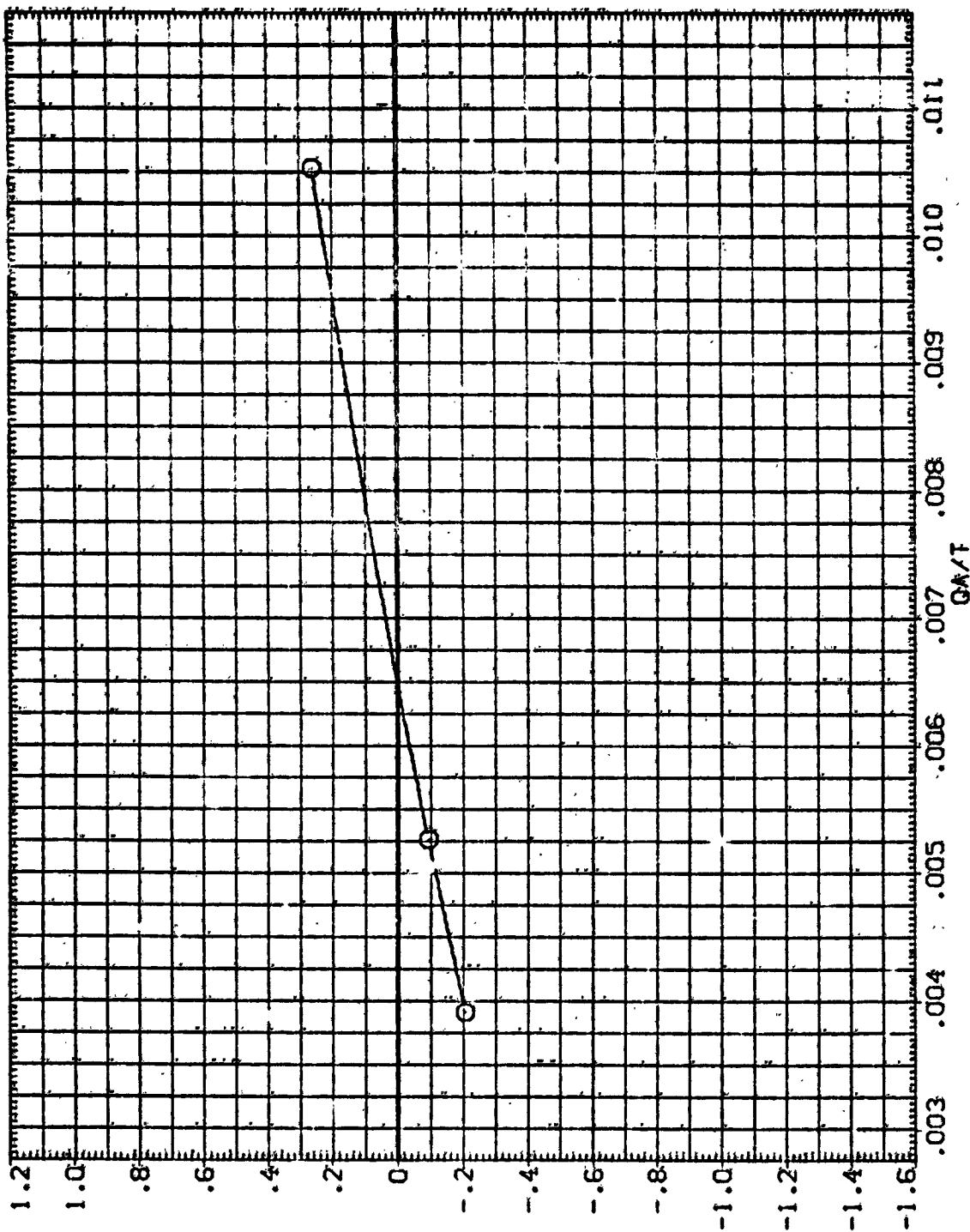
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(M)ALPHA = 25.00

DATA SET SYMBOL (SJA011) \bigcirc 01N84 CONFIGURATION DESCRIPTION LARE CFHT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BDF LAP .000 BETA .080

REFERENCE INFORMATION
 SREF 2630.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 536.6800 INCHES
 XMRP 1076.7000 IN. X
 YMRP .0000 IN. Y
 ZMRP 375.0000 IN. Z
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N/NF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(N)ALPHA = 30.00

DATA SET SYMBOL (SJA011) ☐ 01N84

ELEVON .000 NO. JET 2.000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 471.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7080 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

CONFIGURATION DESCRIPTION
 LARC CFMT 118 (MA-221)

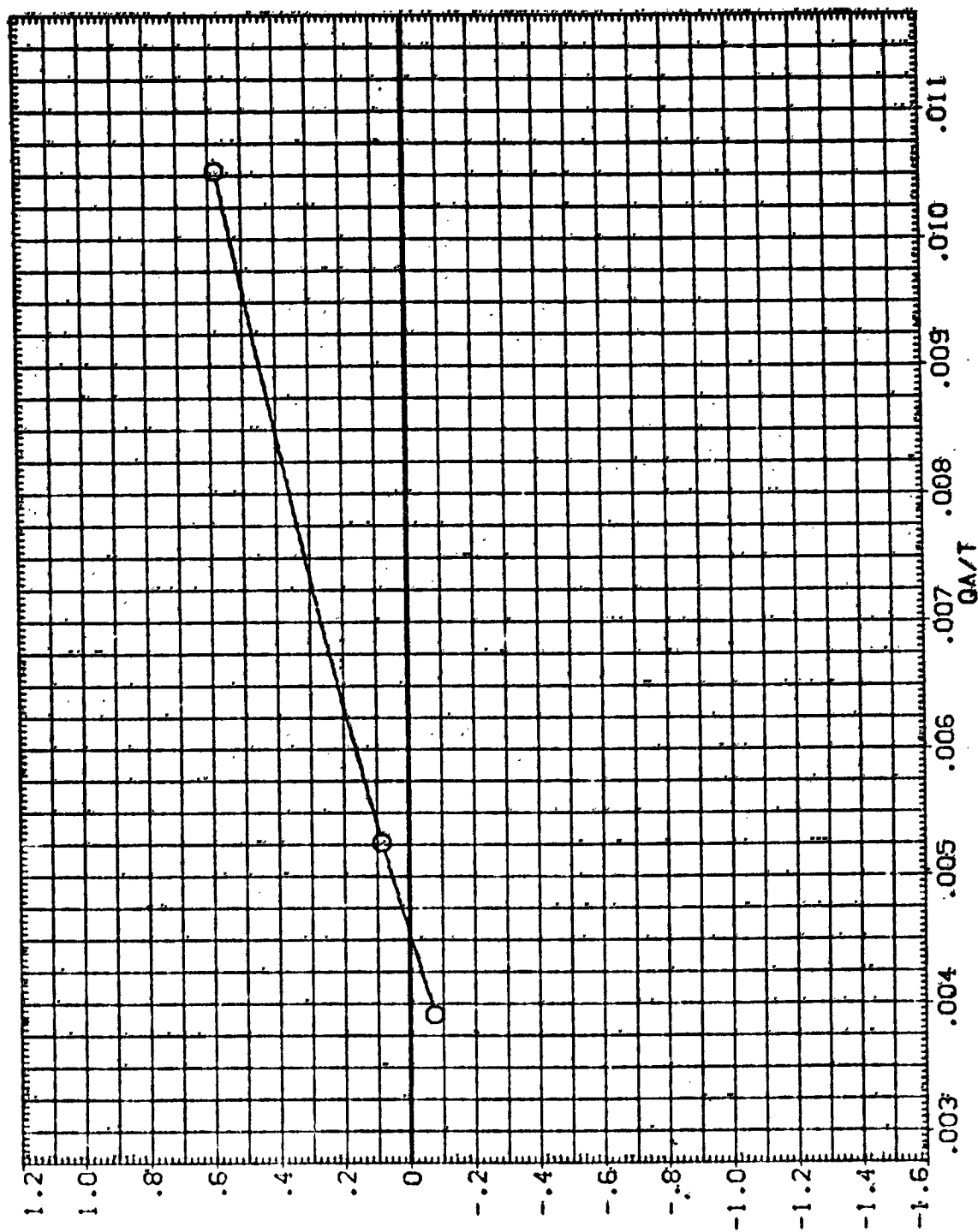


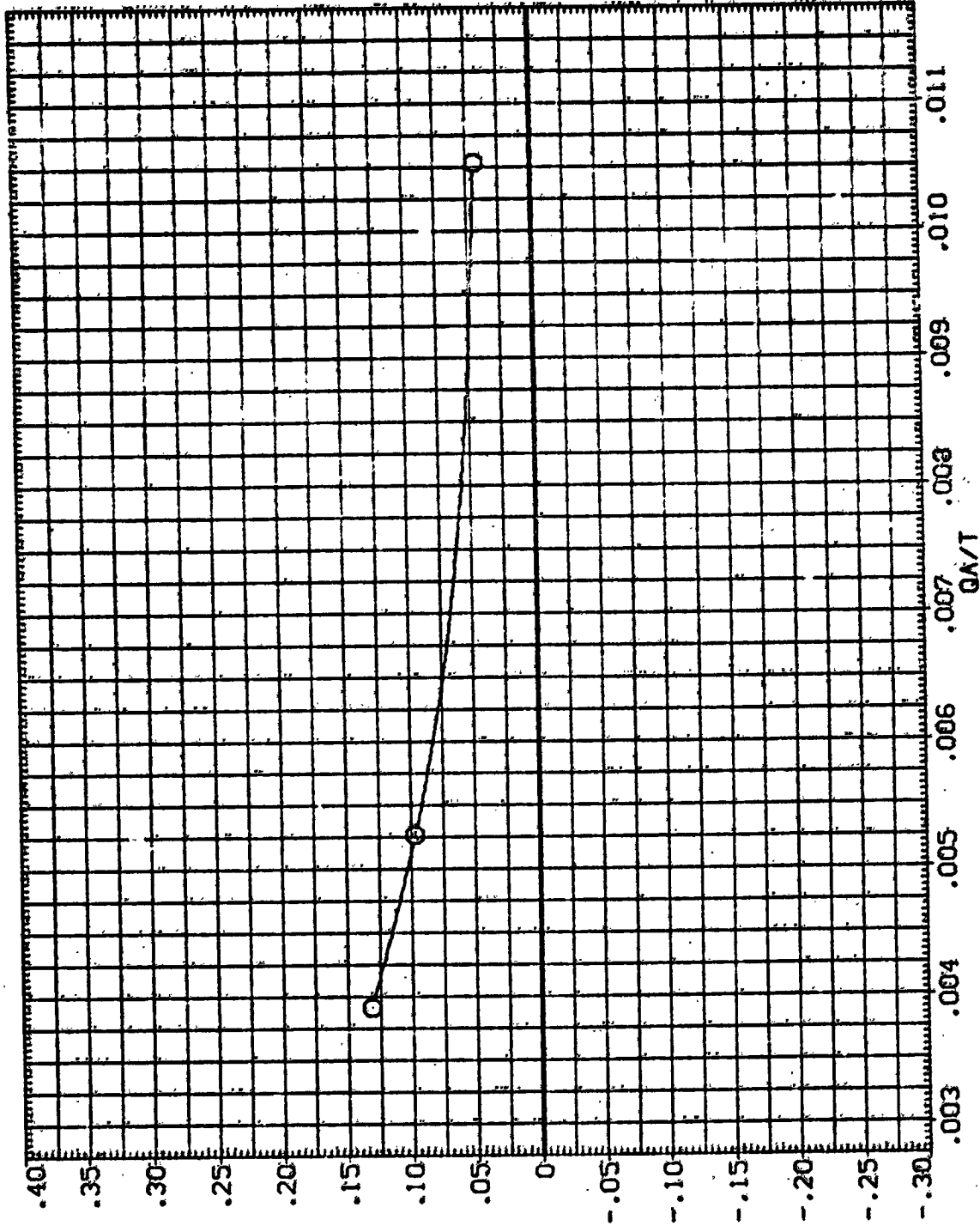
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(0) ALPHA = 35.00

DATA SET SYMBOL: 01N84
 CONFIGURATION DESCRIPTION: LARC CFHT 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BDFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2696.0000 INCHES
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. 20
 YMRP: .0000 IN. 20
 ZMRP: 375.0000 IN. 20
 SCALE: .0100



RCS JET AMPLIFICATION FACTOR - PITCH, NPM

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(A) ALPHA = -8.00

DATA SET SYMBOL (SIAQ11) \bigcirc GEN84

CONFIGURATION DESCRIPTION LARC CRHT 118 (MA-22)

ELEVON .000

NO. JET 2.000

BOLAP .000

BETA .000

REFERENCE INFORMATION

SREF 2690.0000 SQ. FT.

LREF 474.8000 INCHES

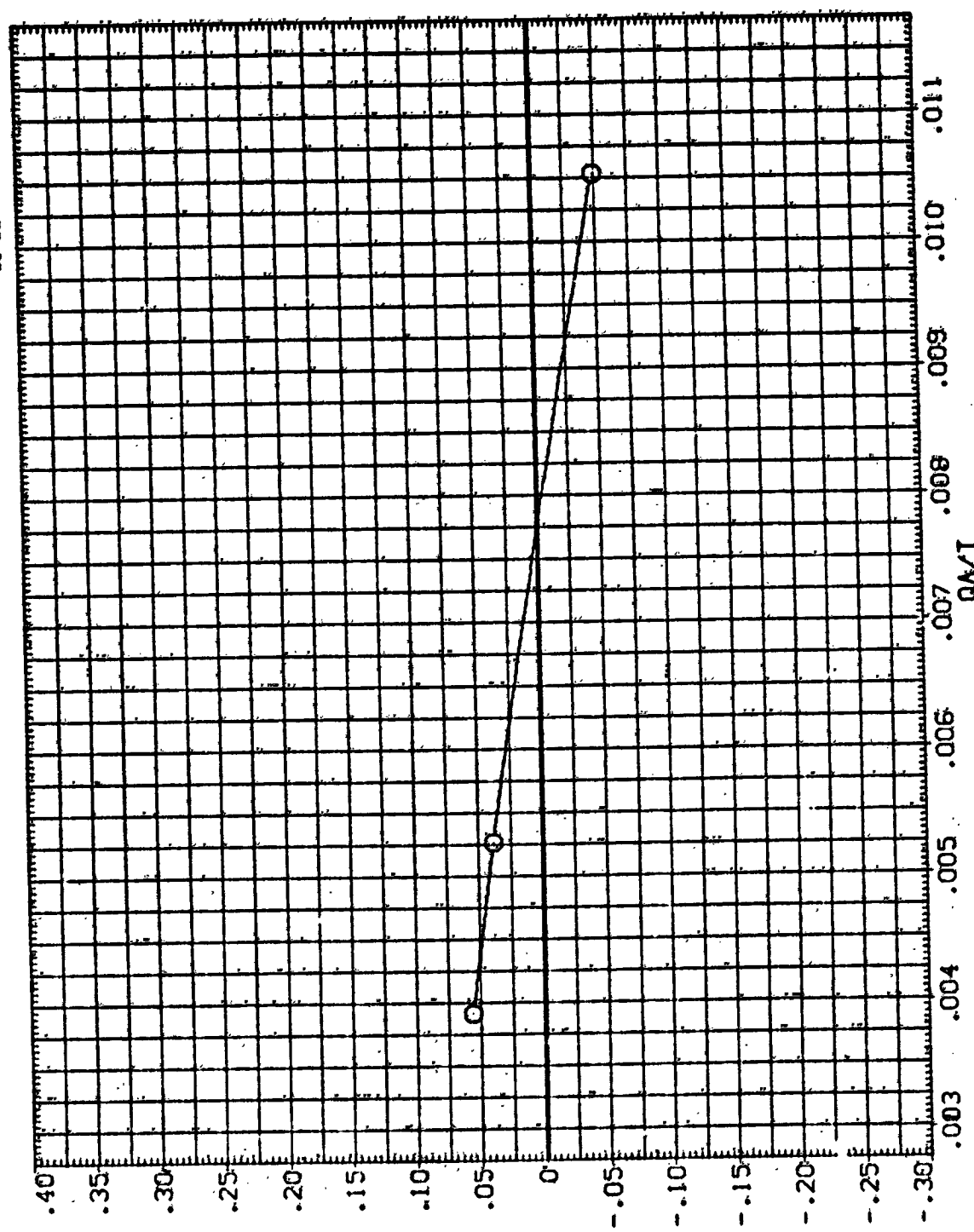
BREF 936.6800 INCHES

XMRP 1076.7000 IN. X0

YMRP .0000 IN. Y0

ZMRP 375.0000 IN. Z0

SCALE .0100



RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(B) ALPHA = -6.00

DATA SET SYMBOL: 01N84
 CONFIGURATION DESCRIPTION: LARC CFMT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. TO
 YMRP .0900 IN. TO
 ZMRP 375.0000 IN. TO
 SCALE .0100

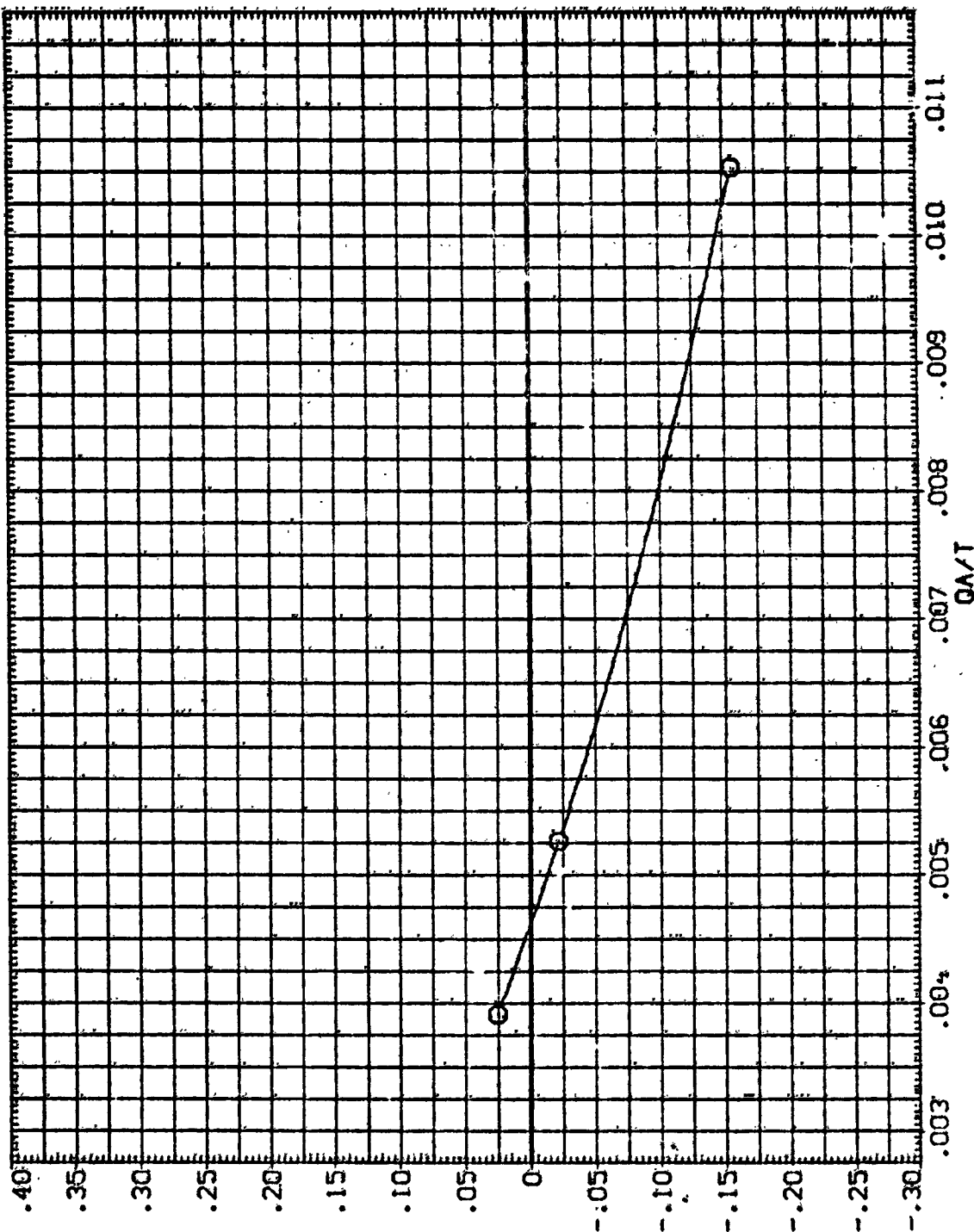


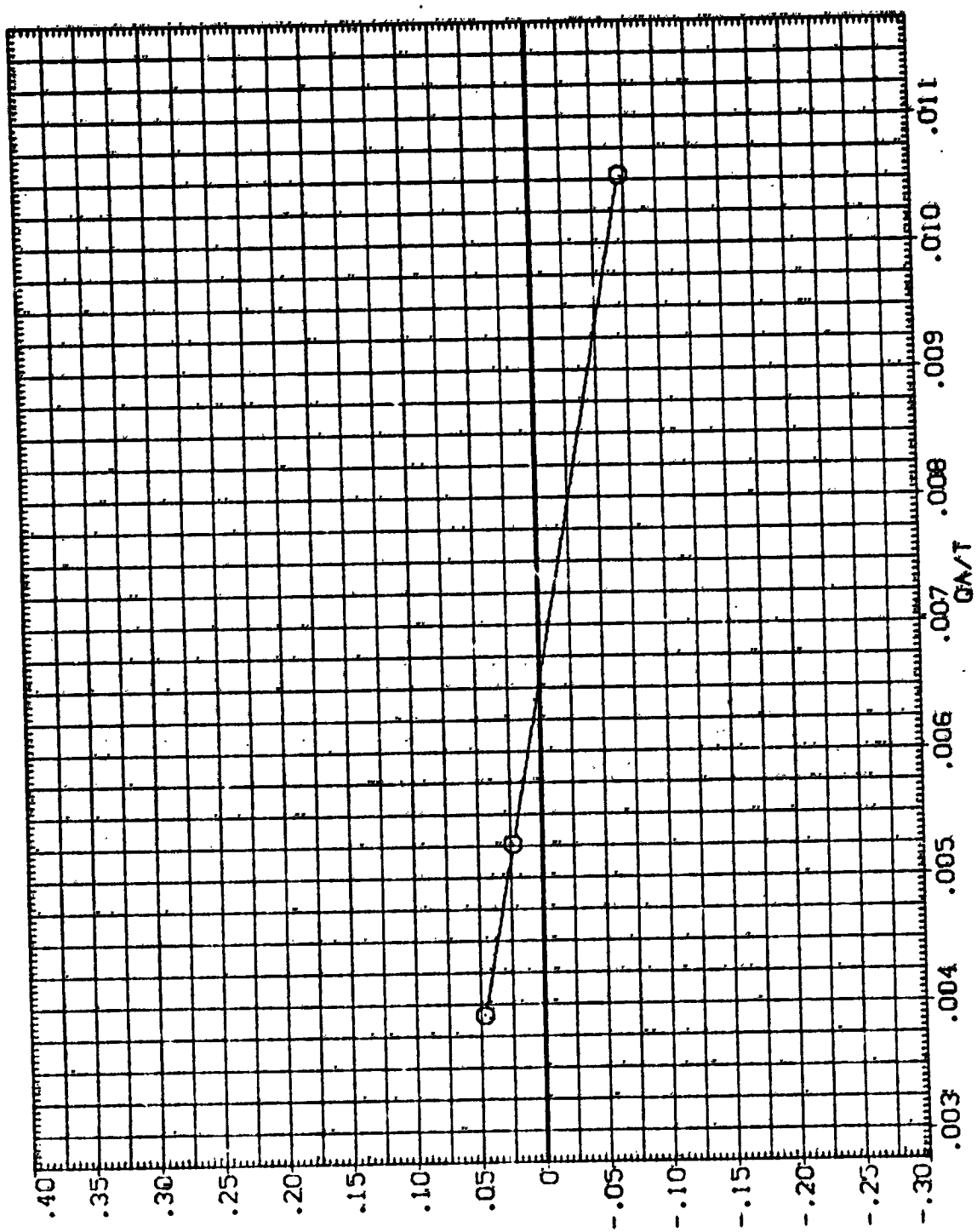
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(C)ALPHA = -4.00

DATA SET SYMBOL (SJAQ11) \bigcirc 01N84
 CONFIGURATION DESCRIPTION LARC CFM1 118 (MA-22)

ELEVATION .000
 NO. JET 2.000
 BOFLAP .000
 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SR.FT.
 LREF 474.8080 INCHES
 BREF 936.6800 INCHES
 XMRP 1026.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 373.0000 IN. Z0
 SCALE .0190



RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(CO)ALPHA = -2.00

DATA SET SYMBOL (SJA0111) O QIN84

CONFIGURATION DESCRIPTION

LARG CFHT 118 (MA-22)

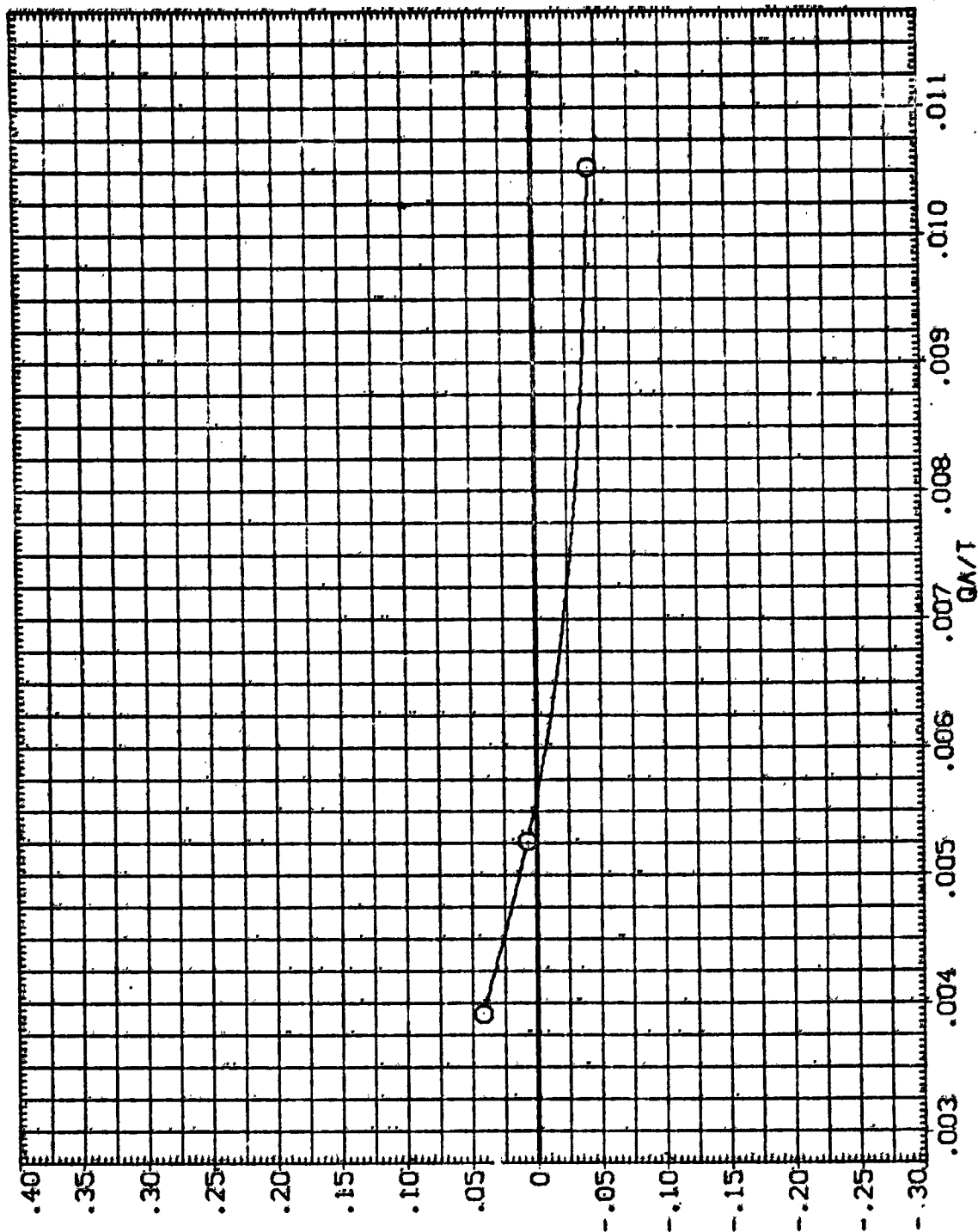
ELEVON .000

NO. JET 2.088

BD FLAP .000

BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0109



RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(E) ALPHA = .00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BDPLAP		BETA		REFERENCE INFORMATION	
(SJA011)	O	01N84	LARC CENT 118 (NA-22)	.000	.000	2.000	.000	.000	.000	SREF	2650.0000	SD. FT.	
										LREF	474.8000	INCHES	
										BREF	936.6000	INCHES	
										XMRP	1076.7000	IN. X0	
										YMRP	.0000	IN. Y0	
										ZMRP	375.0000	IN. Z0	
										SCALE	.0100		

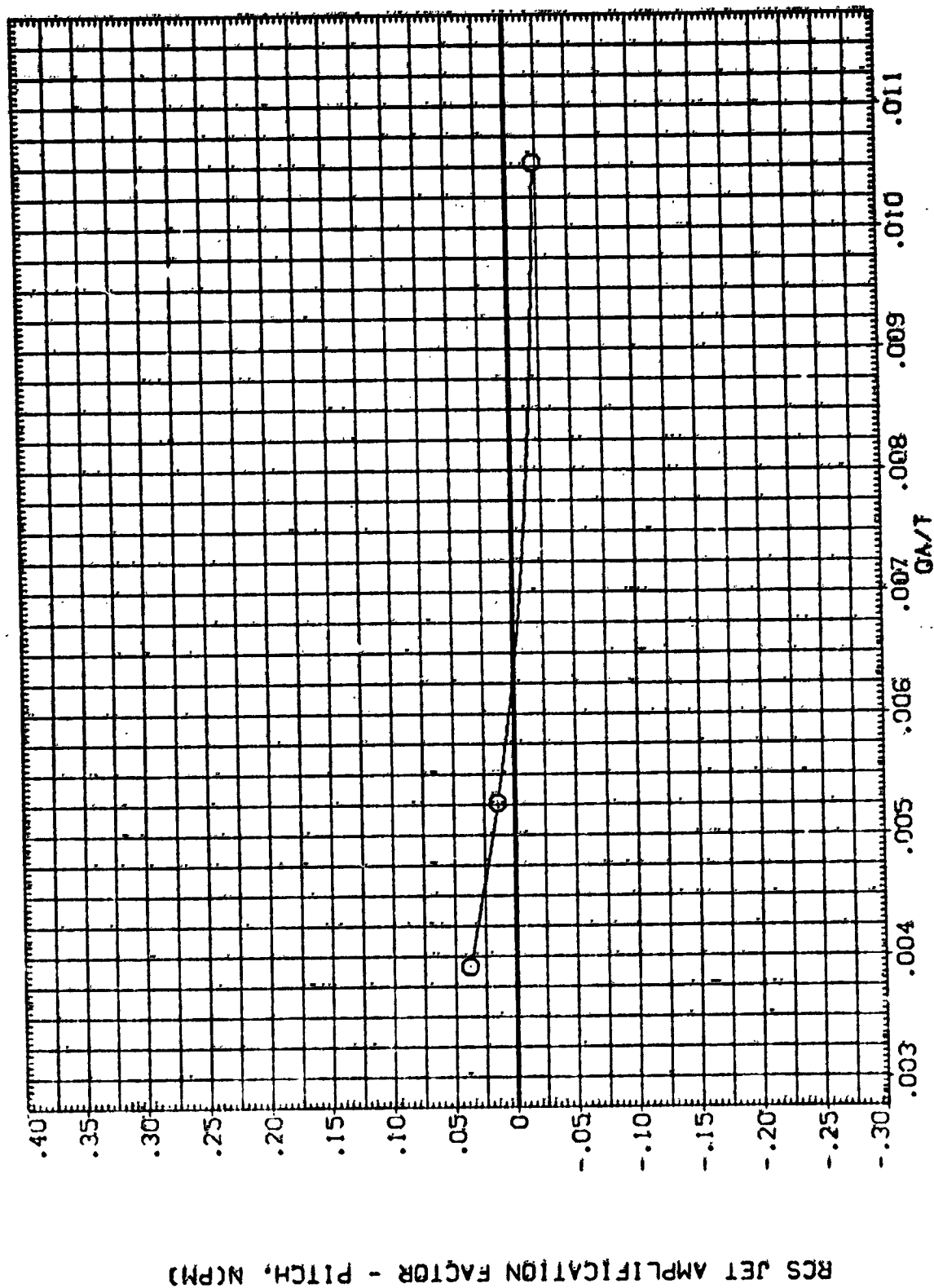


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(FYALPHA = 2.00

REFERENCE INFORMATION
 SREF 2650.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 935.5800 IN. X0
 XMRP 1026.7080 IN. Y0
 YMRP .0080 IN. Z0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

ELEVON .000 NB.JET 2.000 BOFLAP .000 BETA .000

DATA SET SYMBOL (SJA011) 0 QIN84 CONFIGURATION DESCRIPTION LARC CFHT 118 (MA-22)

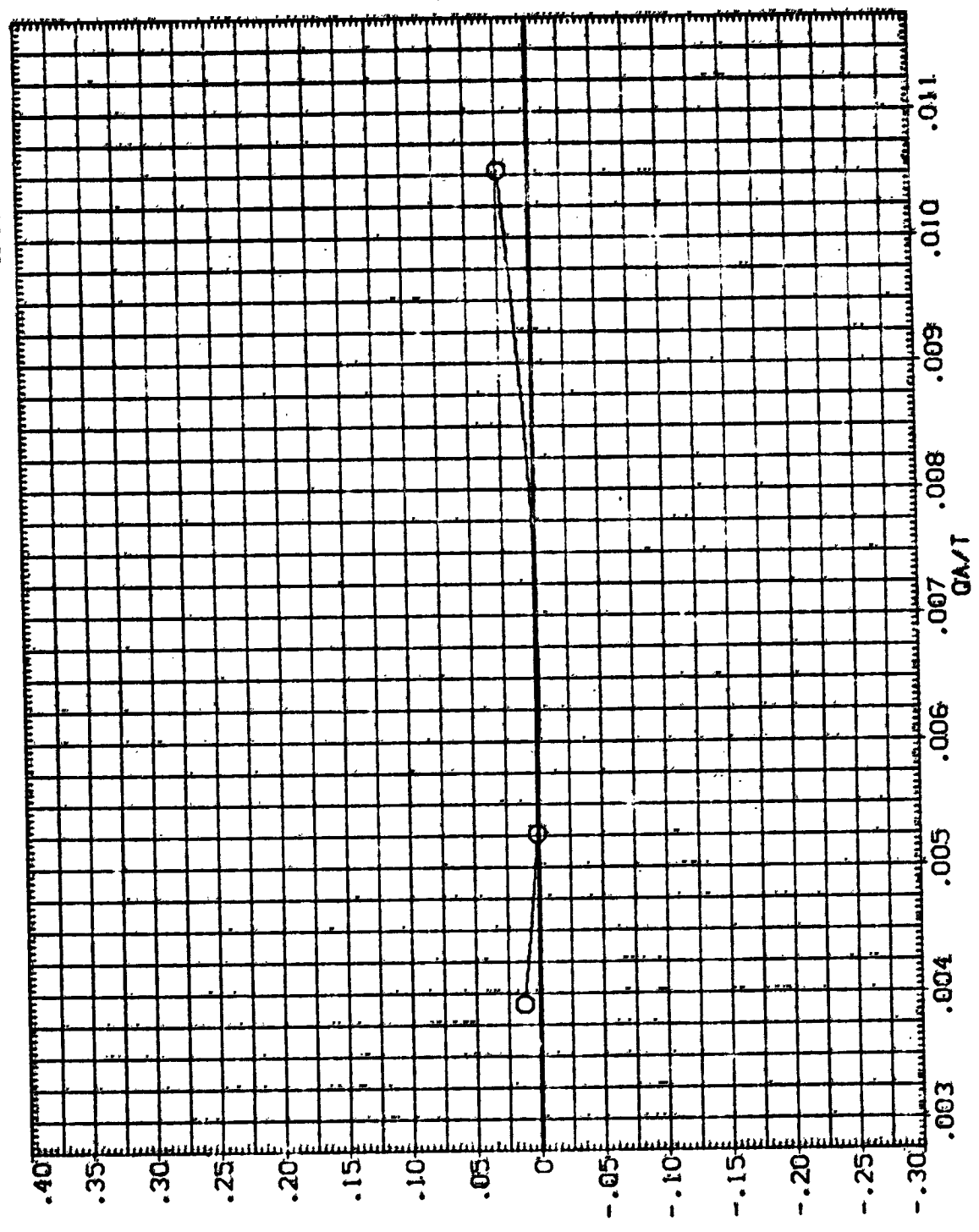


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(G)ALPHA = 4.00

DATA SET SYMBOL (S7A011) ☐ 01184

CONFIGURATION DESCRIPTION
LARC CFMT 118 (MA-22)

ELEVON .008 NO. JET 2.000 BDPLAP .000 BETA .000

REFERENCE INFORMATION
SREF 2690.0000 SU.FT.
LREF 474.8000 INCHES
GREF 936.6800 INCHES
XMRP 1676.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0120

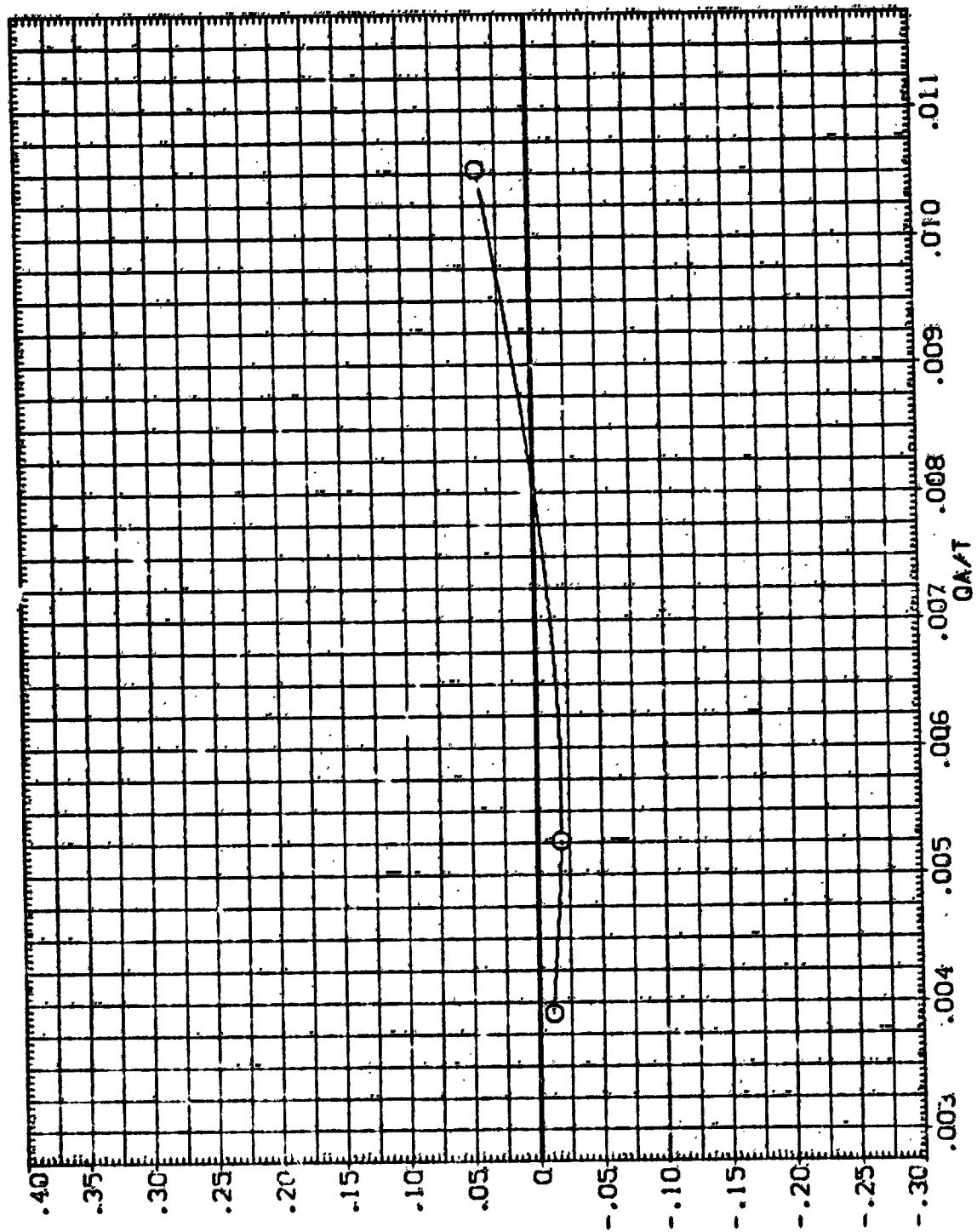


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(H)ALPHA = 6.00

DATA SET SYMBOL (SJA011) 0 QIN84

CONFIGURATION DESCRIPTION LARC GFMT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 50. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. 10
 YMRP .0000 IN. 10
 ZMRP 373.0000 IN. 20
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

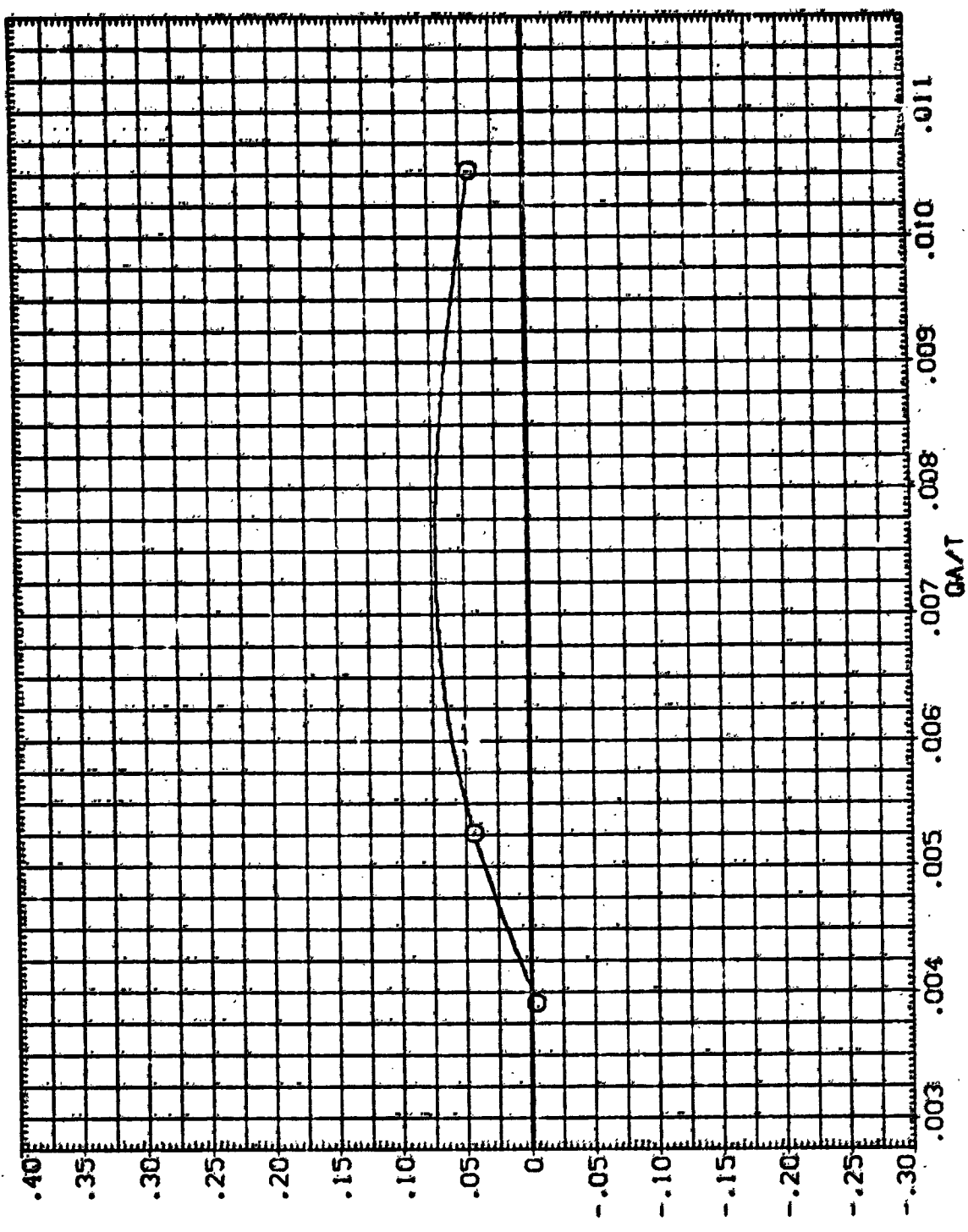
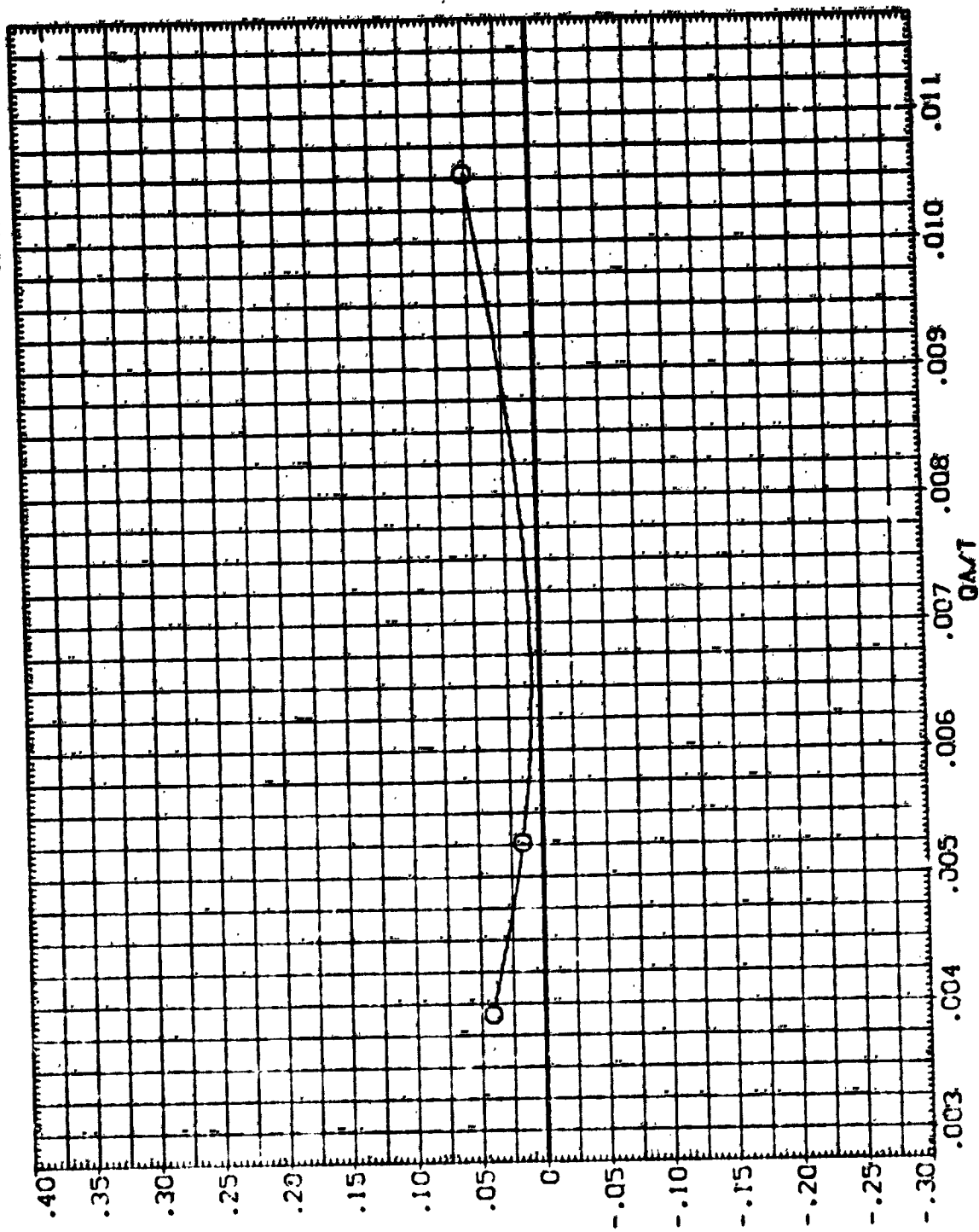


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(I)ALPHA = 8.00

DATA SET SYMBOL (SJA011)
 CONFIGURATION DESCRIPTION (01N84 LARC CPWF 118 (MA-221))
 REFERENCE INFORMATION
 SREF 2690.0000 SO.FT.
 LREF 474.8000 INCHES
 BREF 916.6800 INCHES
 XREF 1076.7000 IN. 10
 YREF 375.0000 IN. 10
 ZREF 375.0000 IN. 20
 SCALE .0100

ELEVON .000
 NO. JET 2.000
 BDFLAP .000
 BETA .000



RCS JET AMPLIFICATION FACTOR - PITCH, (NPM)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(J)ALPHA = 10.00

DATA SET SYMBOL: 01N84
 CONFIGURATION DESCRIPTION: LARC CPHF 118 (HA-22)

ELEVON: .000
 NO. JET: 2.000
 BOFLAP: .000
 GITA: .000

REFERENCE INFORMATION
 SREF: 2690.0000 SO.FT.
 LREF: 474.8000 INCHES
 BREF: 936.6000 INCHES
 XREF: 1076.7000 IN. 10
 YREF: .0000 IN. 10
 ZREF: 395.0000 IN. 20
 SCALE: .0100

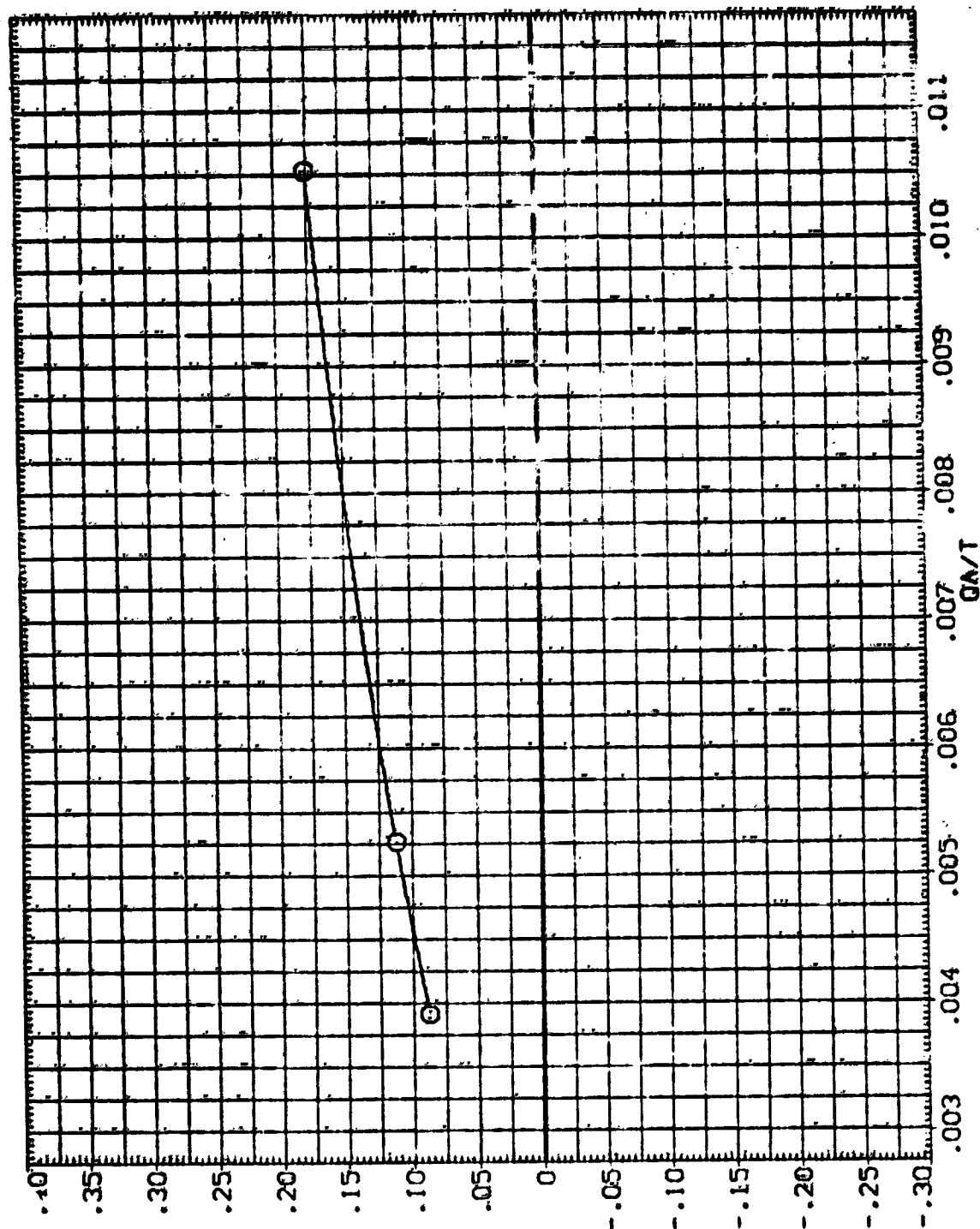


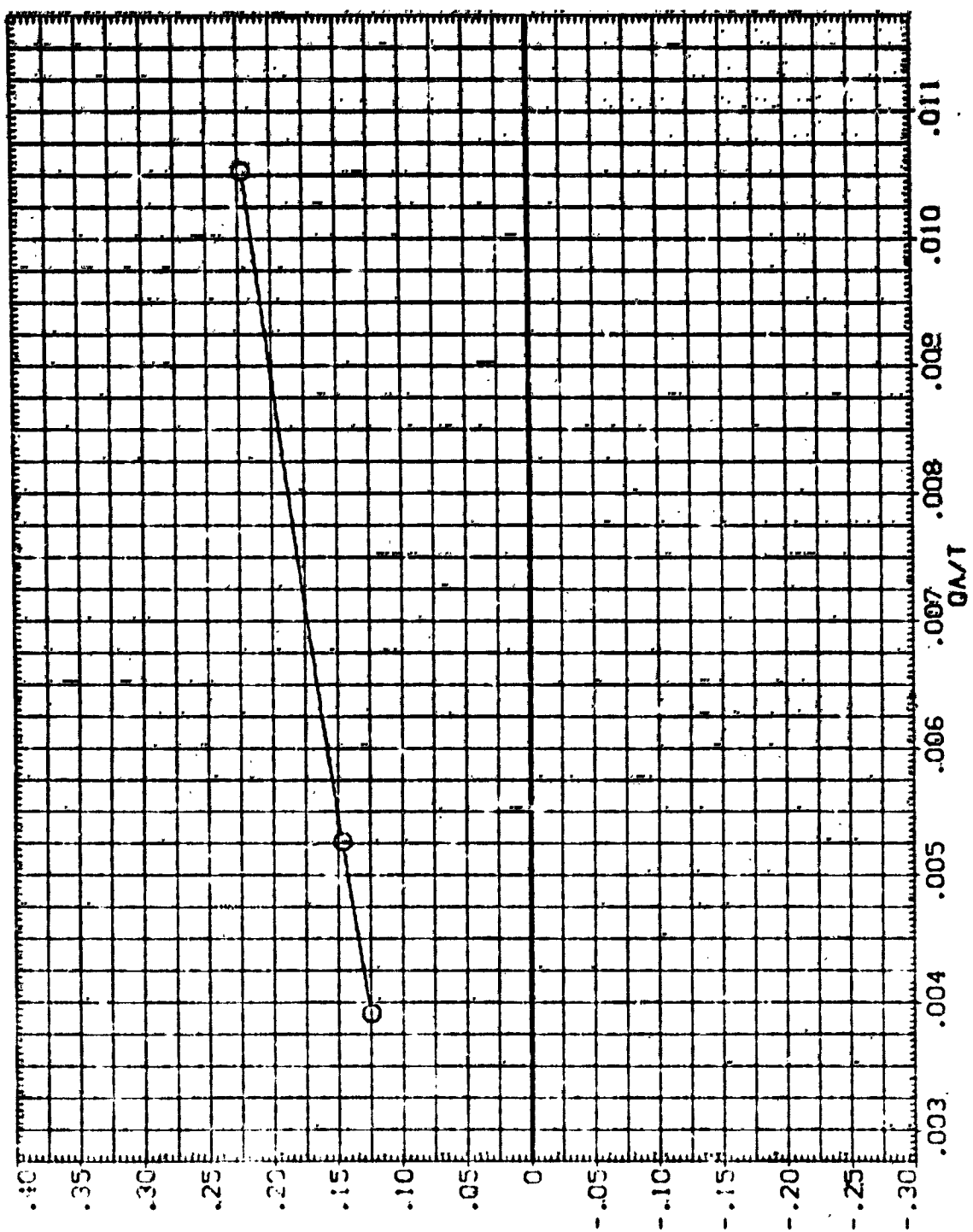
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(K)ALPHA = 15.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (S-9311) O 01:84 LARC CFMT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 50.00 INCHES
 LREF 474.8000 19.00 INCHES
 BREF 936.6800 37.25 INCHES
 XREF 1076.7000 43.10 INCHES
 YREF 373.0000 15.00 INCHES
 ZREF 373.0000 15.00 INCHES
 SCALE .0100

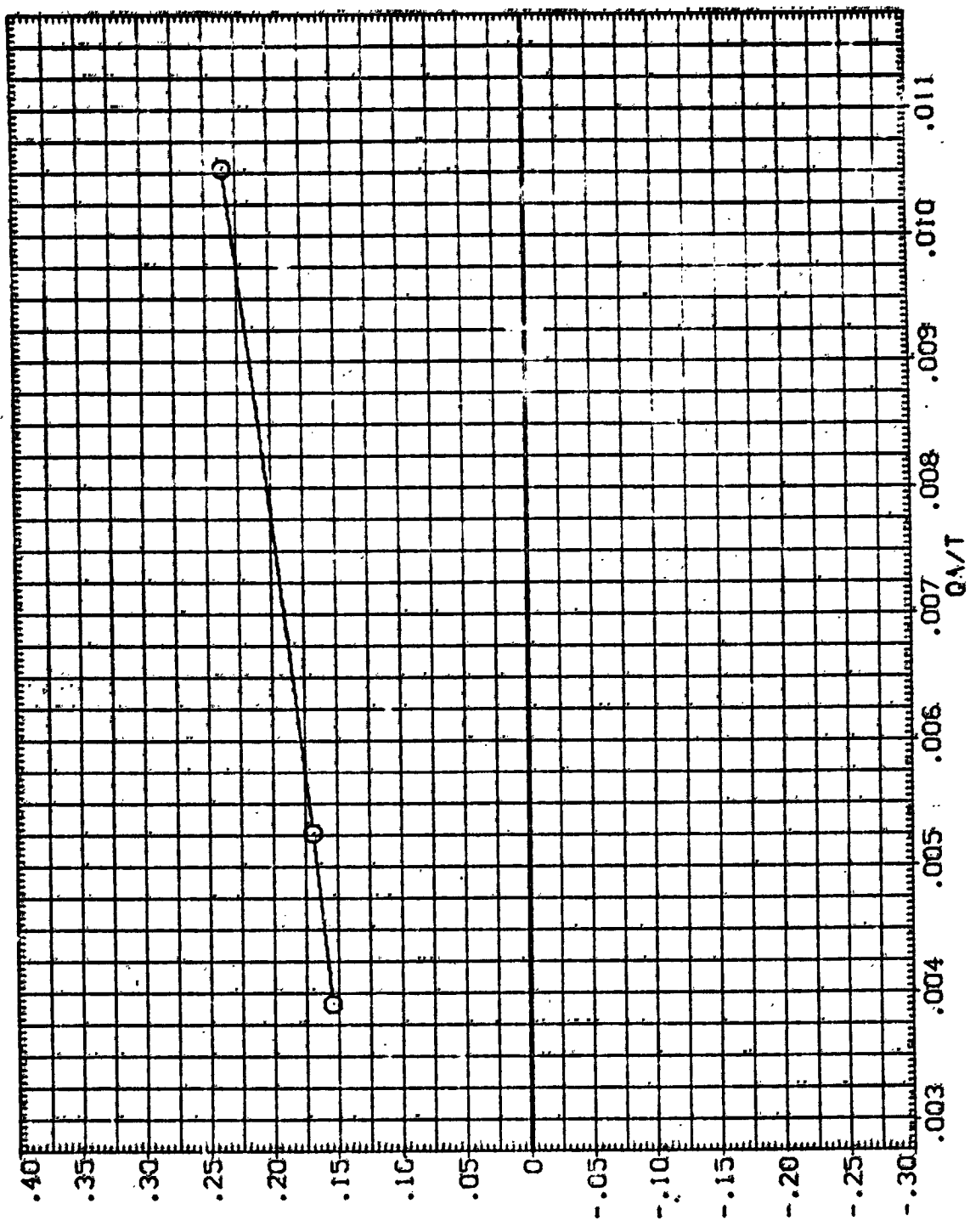


RCS JET AMPLIFICATION FACTOR - PITCH (NPM)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(L) ALPHA = 20.00

DATA SET SYMBOL (SIABIT)	Q	Q1N84	CONFIGURATION DESCRIPTION LARE CPMT 118 (MA-22)	ELEVON .000	NO. JET 2.000	BD FLAP .000	BETA .000	REFERENCE INFORMATION
								SREF 2690.0000 SD FT.
								LREF 474.8000 INCHES
								BREF 936.6800 INCHES
								XMRP 1076.7000 IN. YD
								YMRP .0800 IN. YD
								ZMRP 375.0000 IN. ZD
								SCALE .0100



RCS JET AMPLIFICATION FACTOR - PITCH, NCPM

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(M) ALPHA = 25.00

DATA SET SYMBOL (SJA011) 0 01N84 CONFIGURATION DESCRIPTION LARC CFT 118 (NA-22)

ELEVON .000 NO. JET 2.000 BDFAP .008 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BRGF 938.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

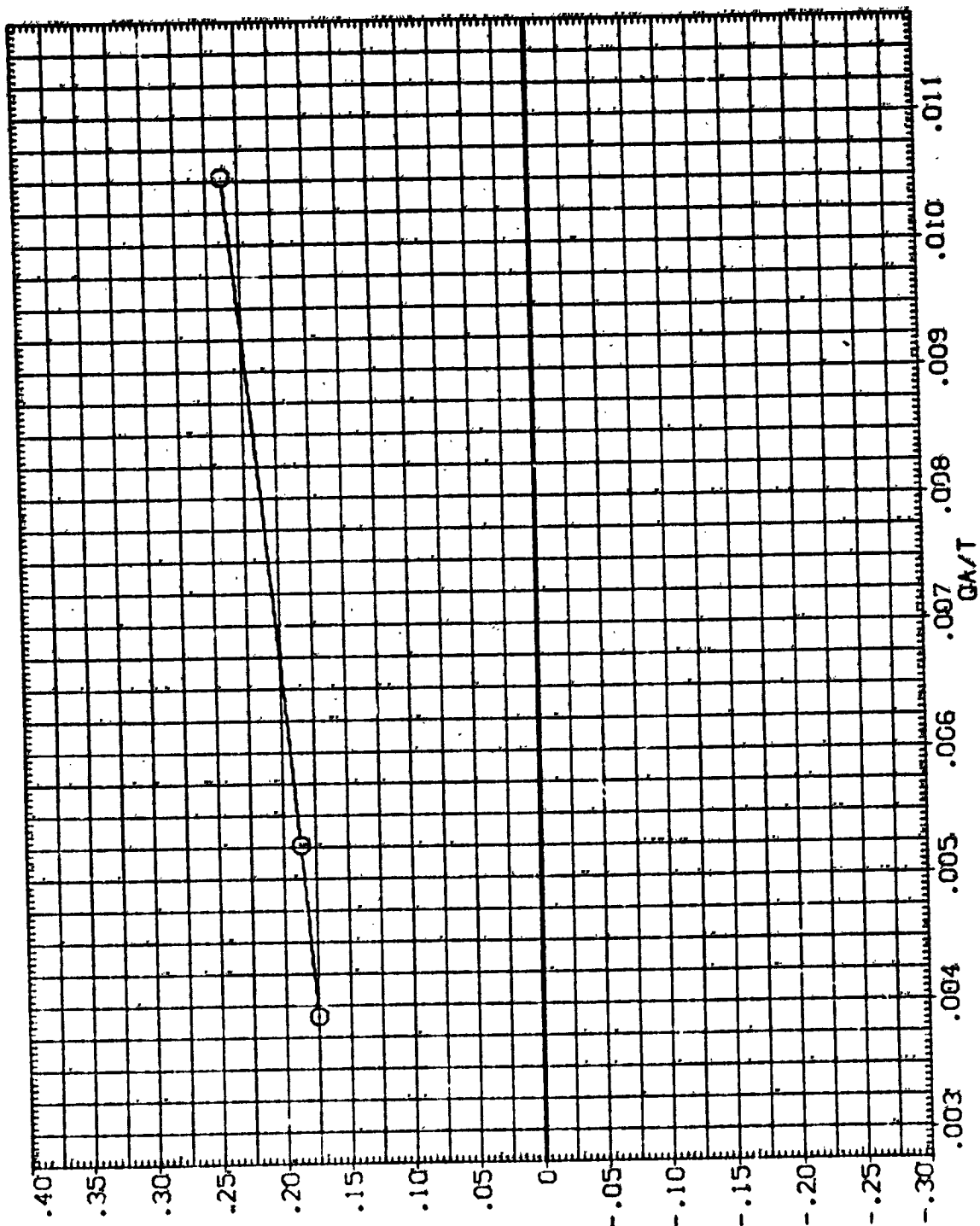


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84
 (N)ALPHA = 30.00

DATA SET SYMBOL: O 01N84
 (STABILITY) LARC CPNT 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SD. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. X8
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

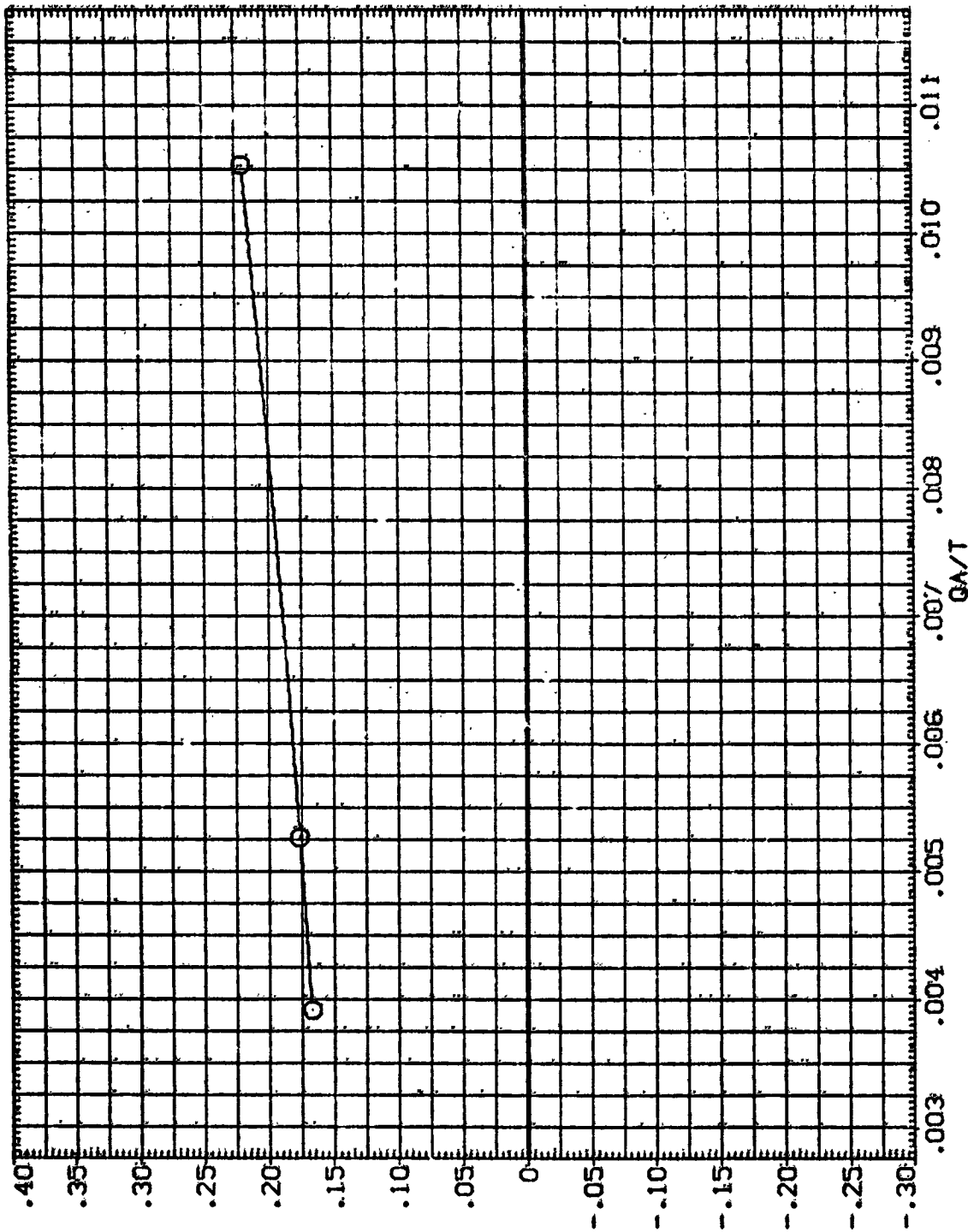


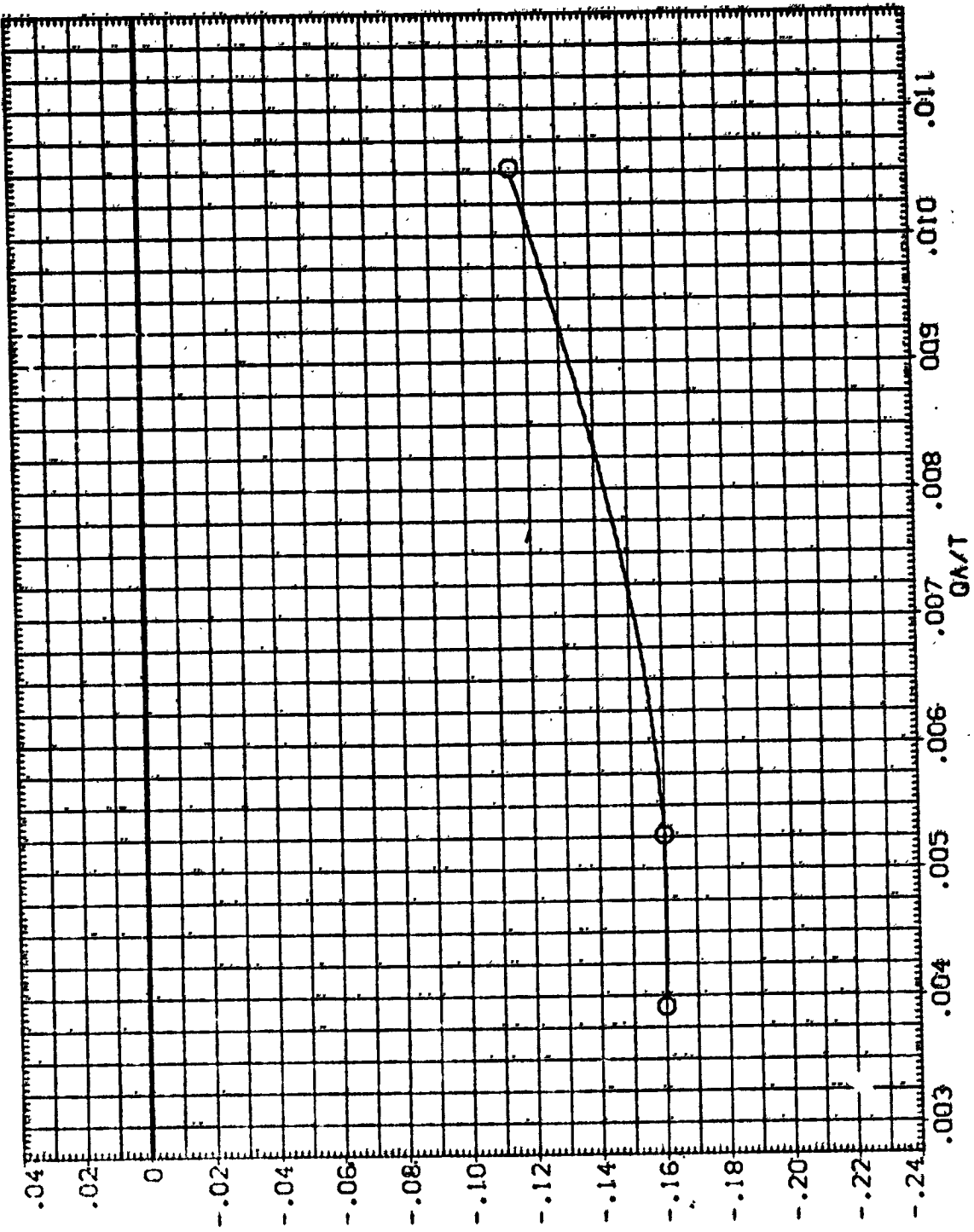
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(O) ALPHA = 35.00

REFERENCE INFORMATION
 SREF 2690.0600 SQ.FT.
 LREF 474.8300 INCHES
 BREF 936.6800 INCHES
 XRRP 1076.7800 IN. X0
 YRRP 375.0000 IN. Y0
 ZRRP 375.0000 IN. Z0
 SCALE .0408

ELEVON .000 NO.JET 2.000 BOFLAP .000 BETA .000

DATA SET SYMBOL (SJA011) 0 N84 CONFIGURATION DESCRIPTION LARC CFM1 118 (MA-22)



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCAF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(A) ALPHA = -8.00

DATA SET SYMBOL	Q1N84	CONFIGURATION DESCRIPTION	LARC CFHT 118 (MA-22)	ELEVON	NO. JET	BD FLAP	BETA	REFERENCE INFORMATION
(SJA011)	○			.000	2.000	.000	.000	SRF 2500.0000
								LR 474.8000
								BRF 936.6000
								YMRP 1096.7000
								YMRP .0000
								ZMRP 375.0000
								SCALE .0100

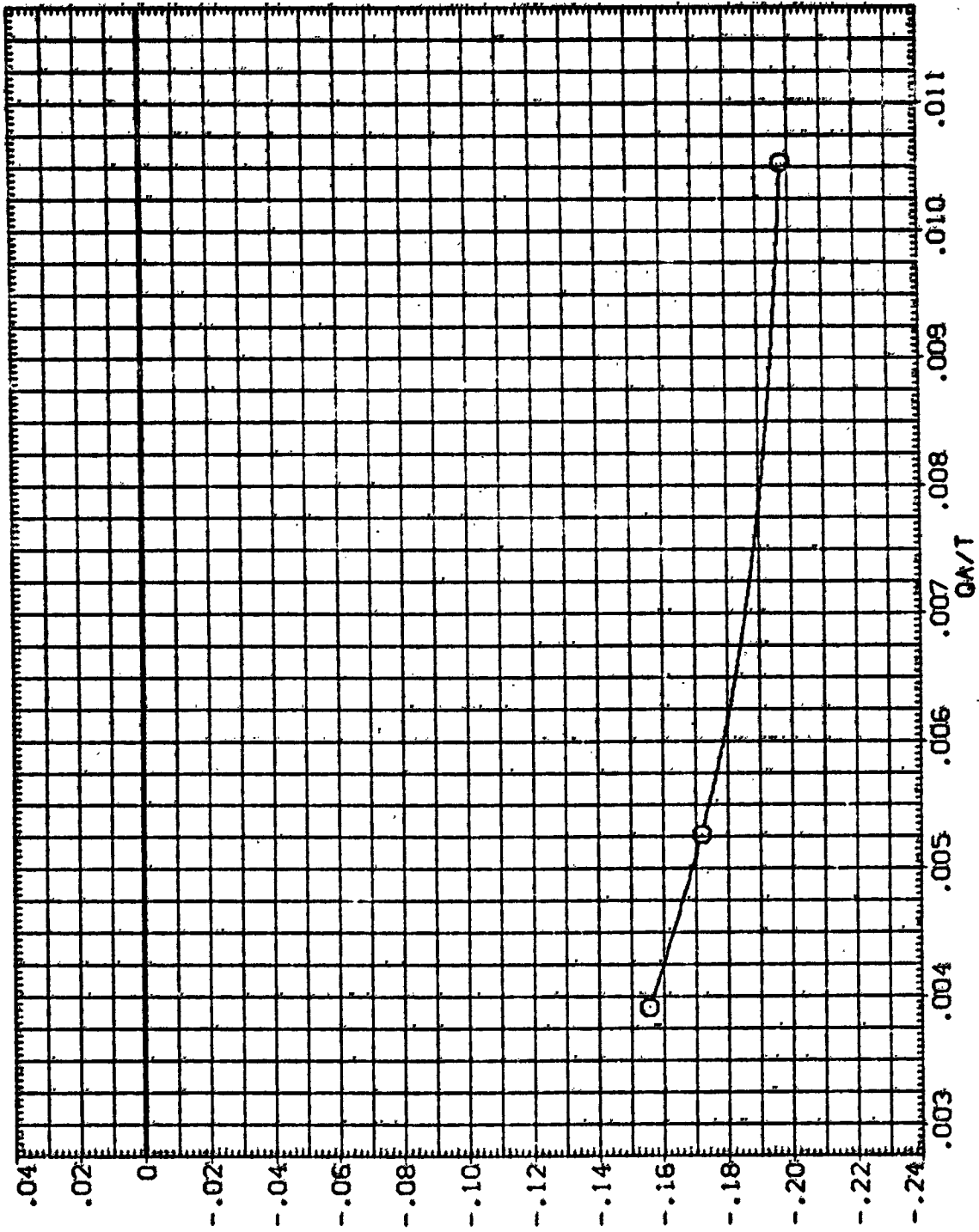


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(B) ALPHA = -6.00

DATA SET SYMBOL (SJA011) O
 CONFIGURATION DESCRIPTION 01N84 LARC CFMT 118 CMA-22
 ELEVON .000 NO. JET 2.000 BDLAP .000 BETA .000
 REFERENCE INFORMATION
 SRPF 2680.0000 SO. FT.
 LREF 474.8808 INCHES
 BRPF 936.6808 INCHES
 XMRP 1076.7808 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0008 IN. Z0
 SCALE .0100

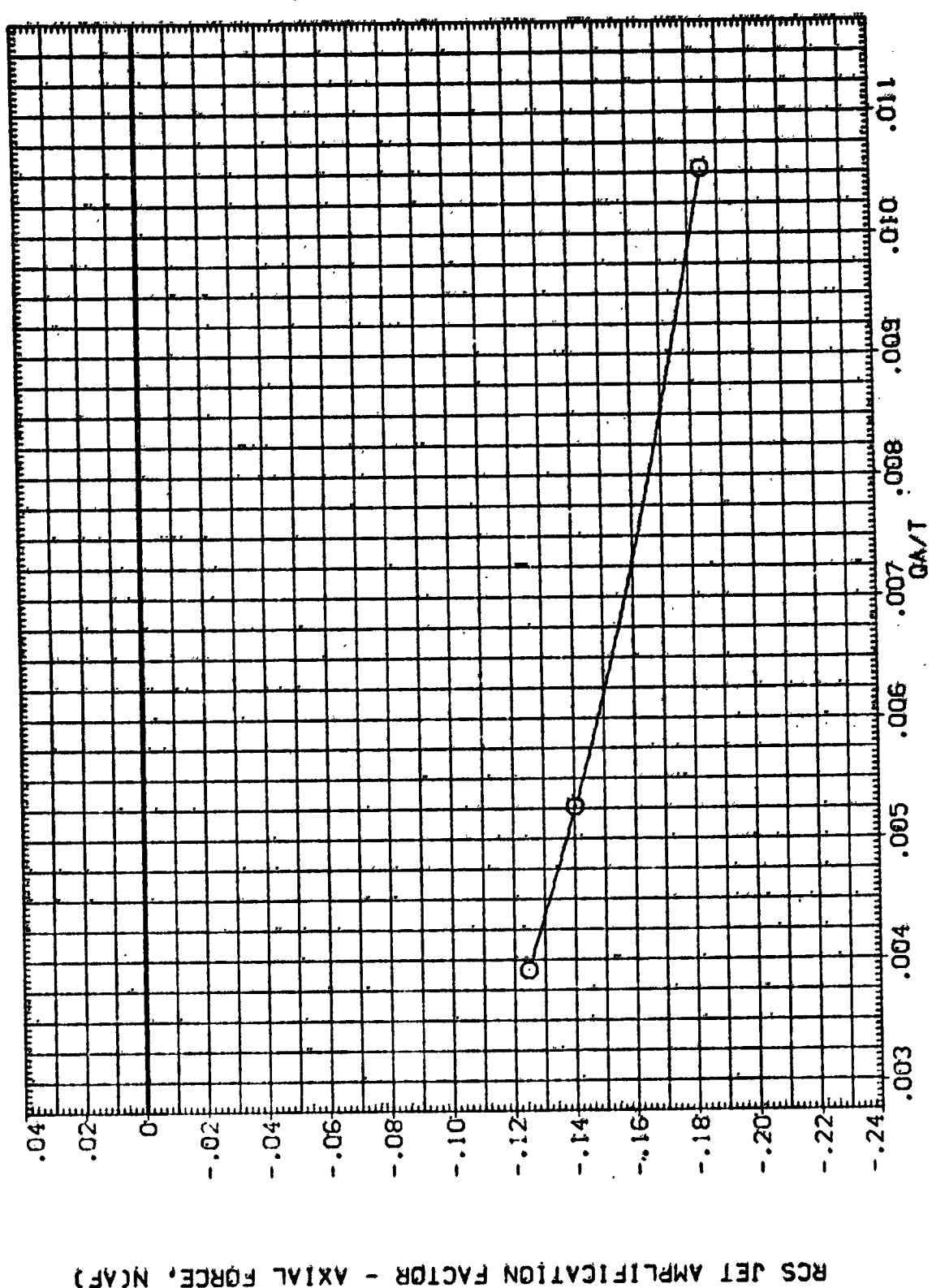


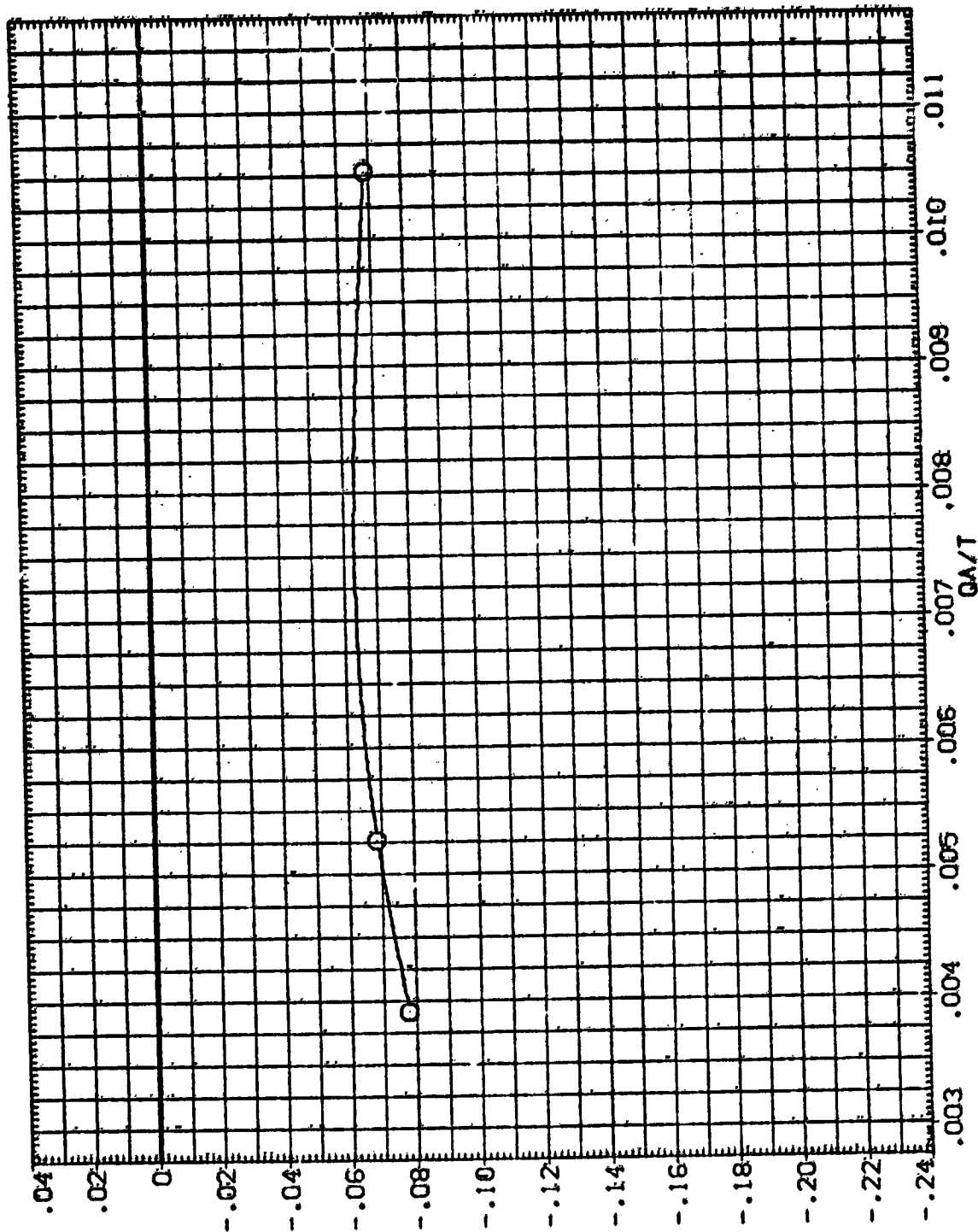
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84
 (C) ALPHA = -4.00

DATA SET SYMBOL (SJA611) 0 01N84

CONFIGURATION DESCRIPTION LARC CPFT 118 (NA-221)

ELEVON .080 NO. JET 2.000 BOFLAP .080 BETA .080

REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 YMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0160



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, N(AF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(O) ALPHA = -2.00

DATA SET SYMBOL: 01N84
 CONFIGURATION DESCRIPTION: LARG CFRT 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BDFLAP: .000
 BETA: .000

REFERENCE INFORMATION
 SREF: 2690.0000 SO.FT.
 LREF: 474.8000 INCHES
 BRPF: 936.6800 INCHES
 XMRP: 1076.7800 IN. 20
 YMRP: .0800 IN. 10
 ZMRP: 375.0000 IN. 20
 SCALE: .0100

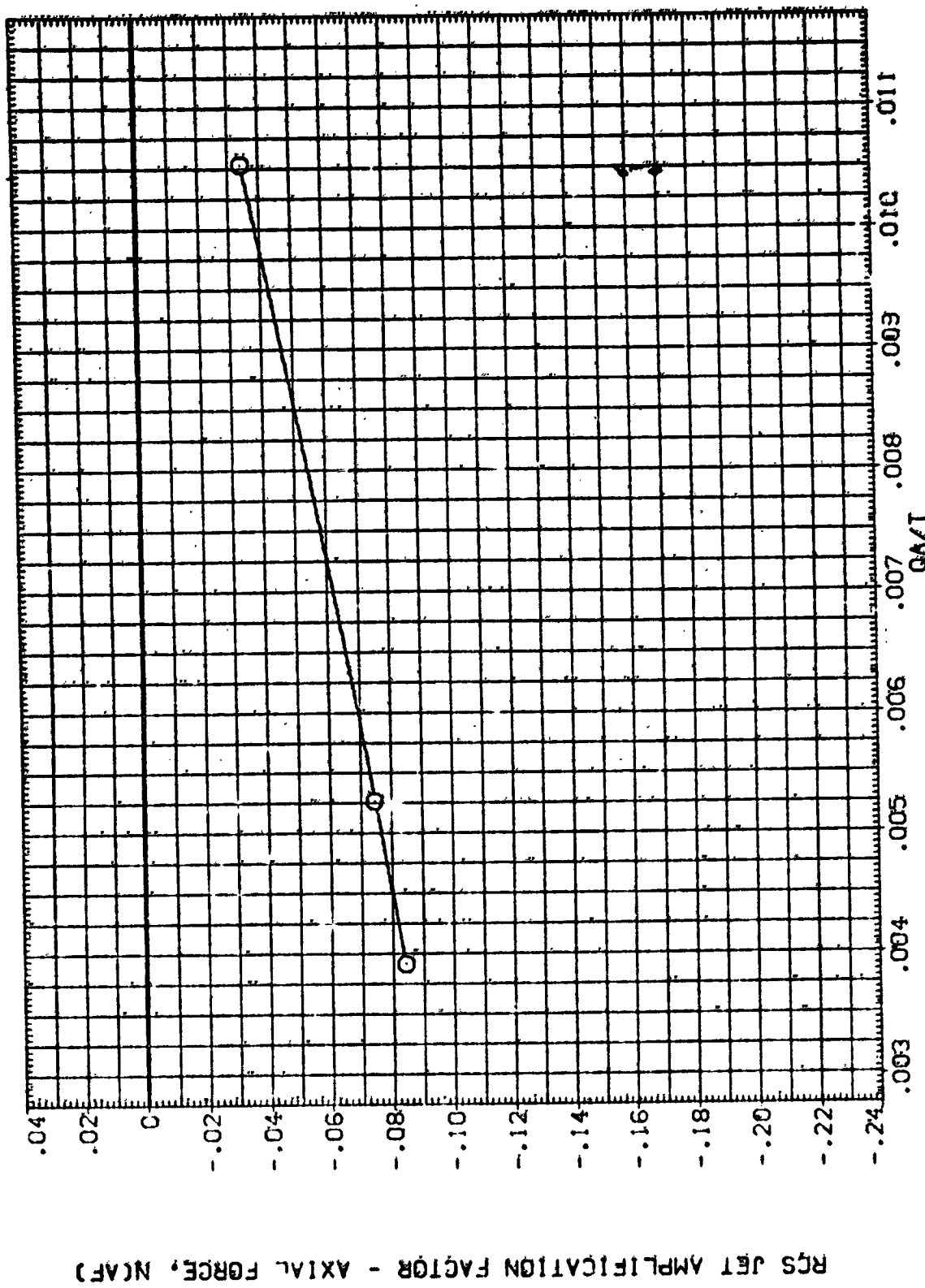


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(E) ALPHA = .00

DATA SET SYMBOL (SJA011) 0 Q1N84

CONFIGURATION DESCRIPTION LARC CFHT 118 (MA-221)

ELEVON .000 NO JET 2.000 BOFLAP .006 BETA .000

REFERENCE INFORMATION
 SREF 2691.0600 50. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

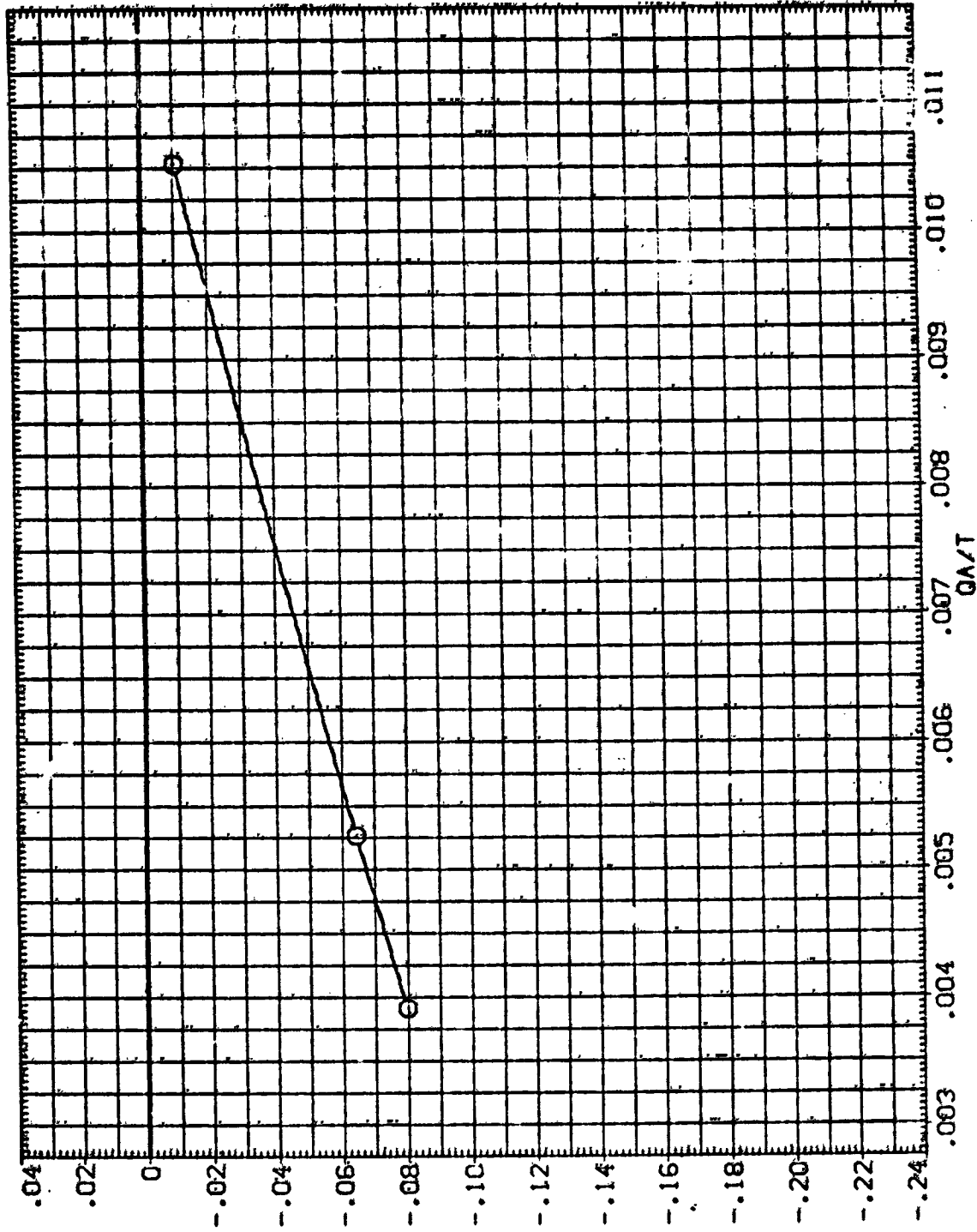


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(F)ALPHA = 2.00

DATA SET SYMBOL (SJA011) O QIN84

CONFIGURATION DESCRIPTION LARC CPHT 118 (MA-22)

ELEVON .000

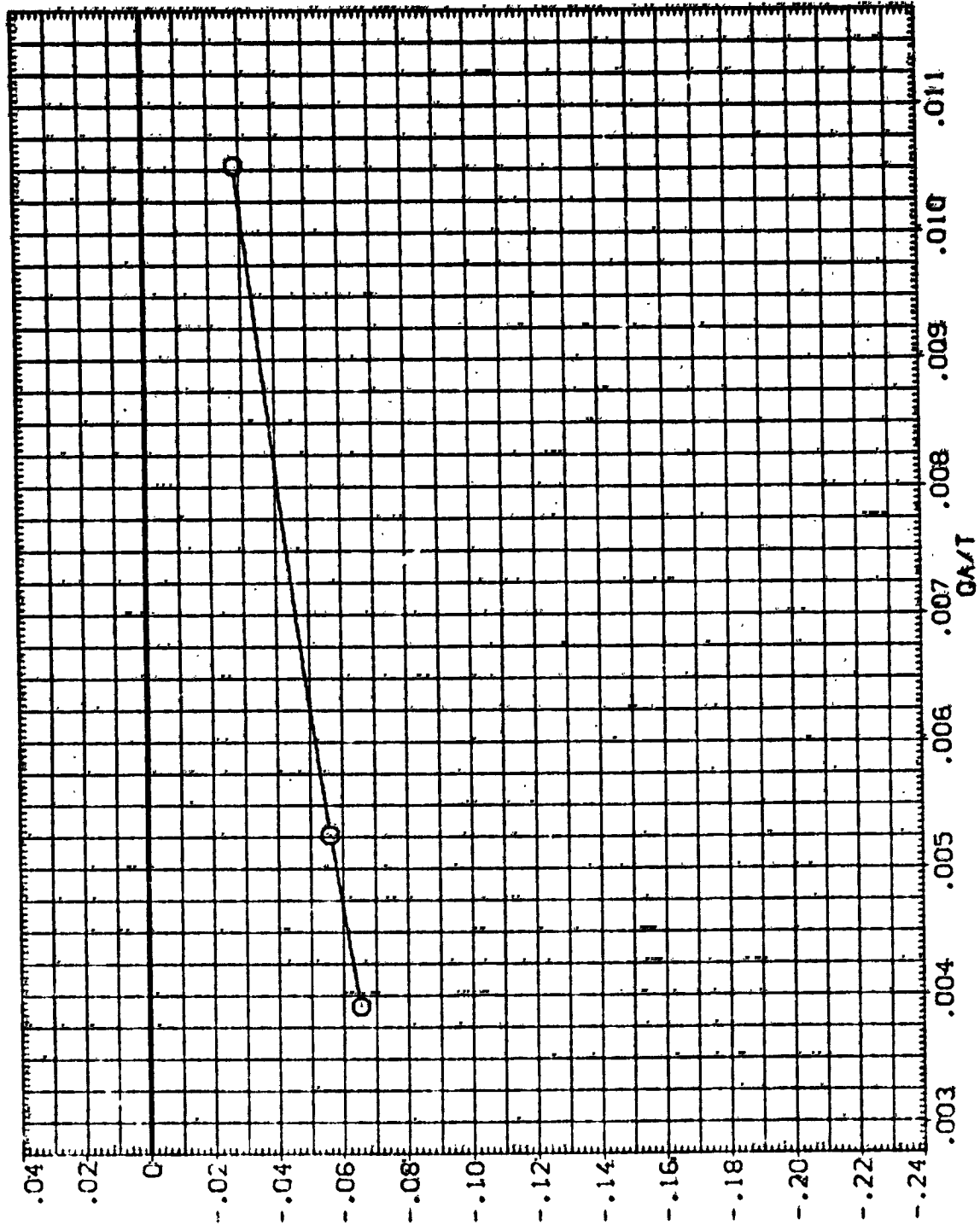
NO. JET 2.000

BD FLAP .000

BETA .000

REFERENCE INFORMATION

SREF	2690.0000	SO. FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	375.0000	IN. Z0
SCALE	.0100	



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCAF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(G)ALPHA = 4.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SYMBOL) ○ ○ N84 LARC CPWT 118 (N84-22)

ELEVON .000 NO. JET 2.008 BDFLAP .000 BETA .000
REFERENCE INFORMATION
SREF 2690.0000 SO. FT.
LREF 474.8000 INCHES
BREF 936.6000 INCHES
XRRP 1076.7000 IN. 10
YRRP .0000 IN. 10
ZRRP 375.0000 IN. 20
SCALE .0100

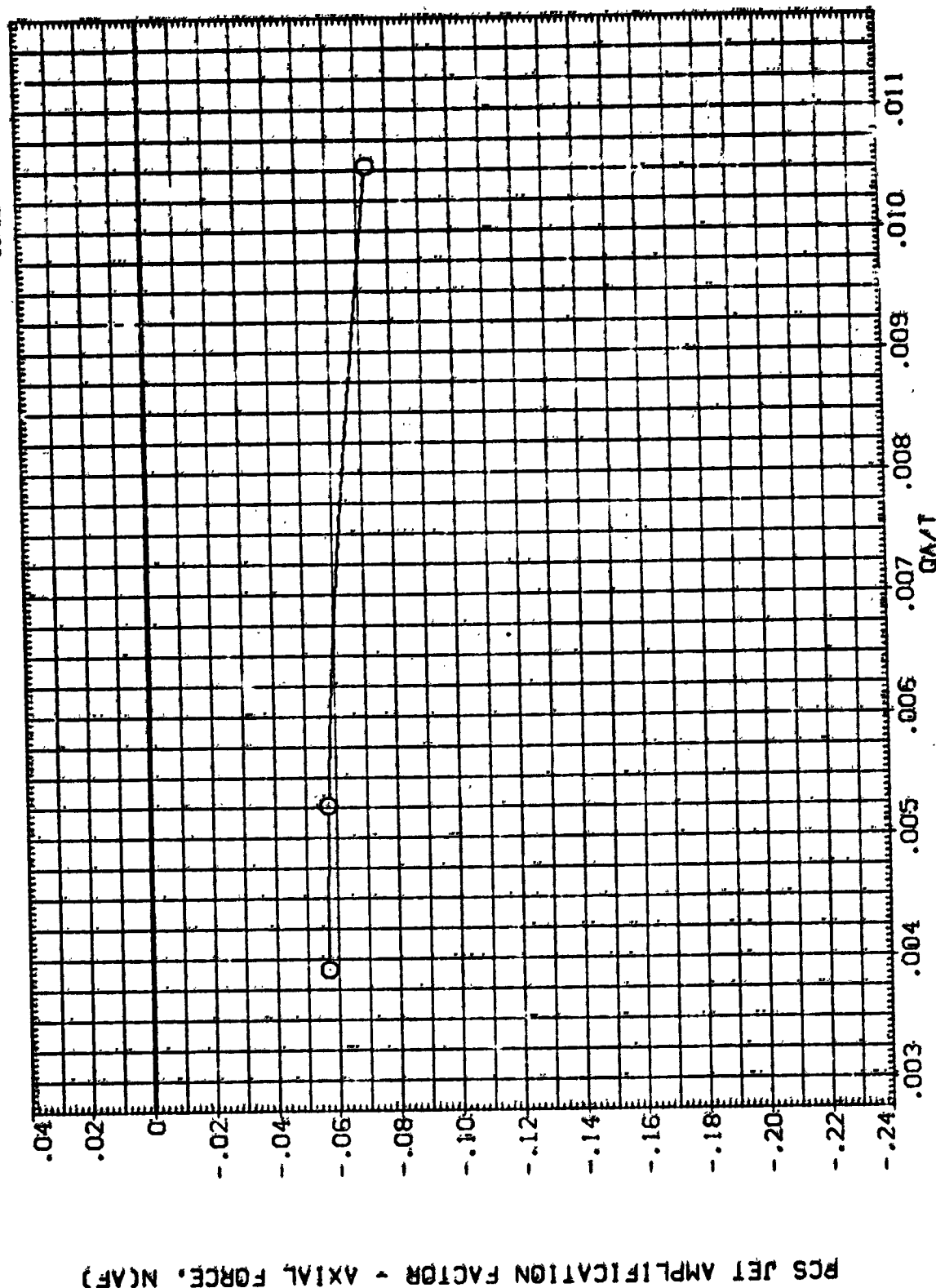


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(H)ALPHA = 6.00

DATA SET SYMBOL (SJA011) \bigcirc 01184 CONFIGURATION DESCRIPTION LARC CPMT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BDFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XPRP 1076.7000 IN. X
 YPRP .0000 IN. Y
 ZPRP 373.0000 IN. Z
 SCALE .0100

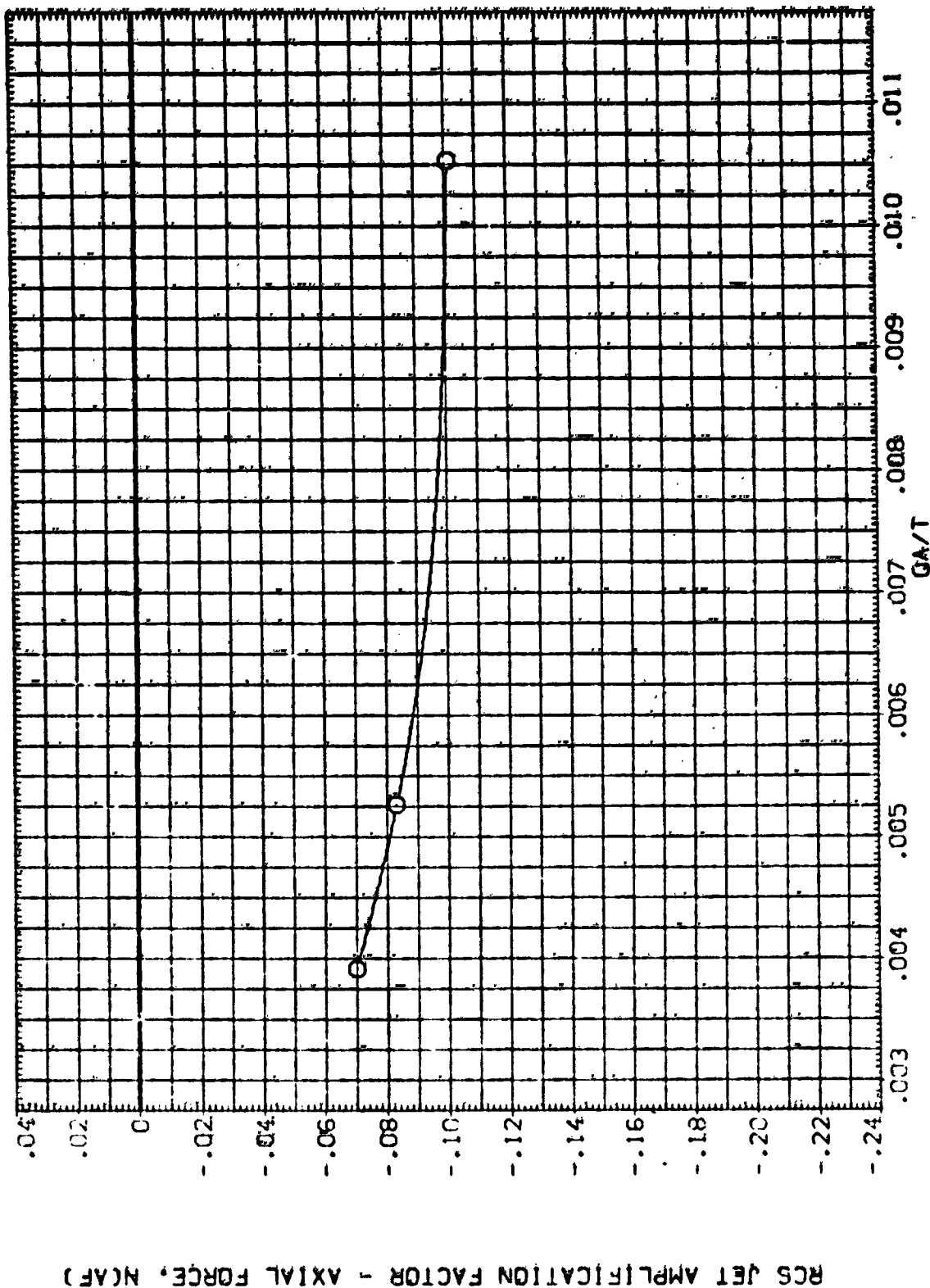
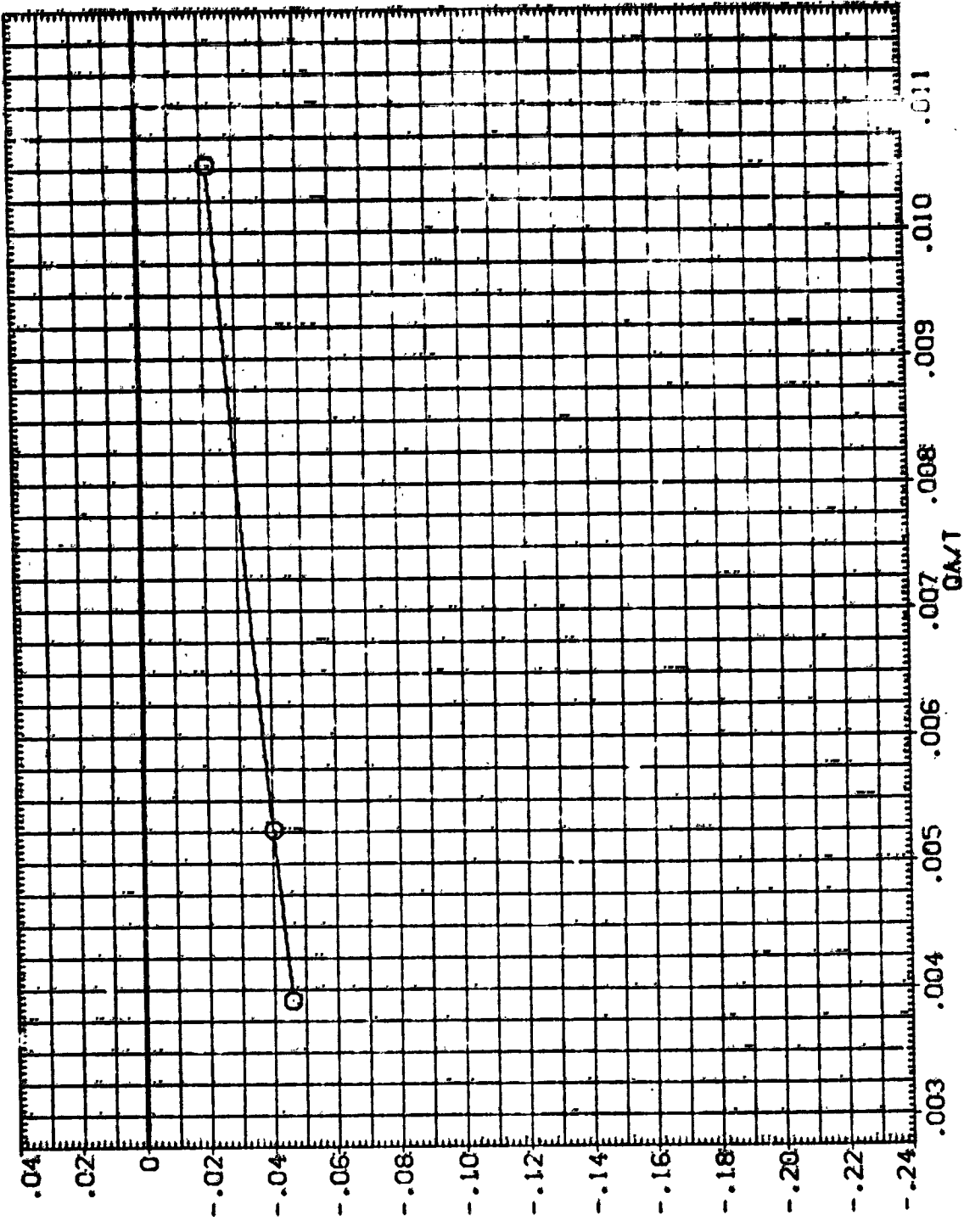


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(α)ALPHA = 8.00

DATA SET SYMBOL (SJA811) O QJNB4 CONFIGURATION DESCRIPTION LARC CFNT 118 (KA-22) ELEVON: .000 NO. JET 2.000 BDFLAP .000 BETA .000

REFERENCE INFORMATION SREF 2698.0000 SQ. FT. LREF 474.8000 INCHES BREF 938.6800 INCHES XREF 1076.7000 IN. X0 YREF .0000 IN. Y0 ZREF 395.0000 IN. Z0 SCALE .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, (NAP)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS NB4

(J)ALPHA = 10.00

DATA SET SYMBOL: 001804 LARC CFM 118 (M-23)

ELEVON NO. JET 80FLAP BETA .000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 YARP 1076.7000 IN. RD
 YARP .0000 IN. VD
 ZARP 375.0000 IN. ZD
 SCALE .0100

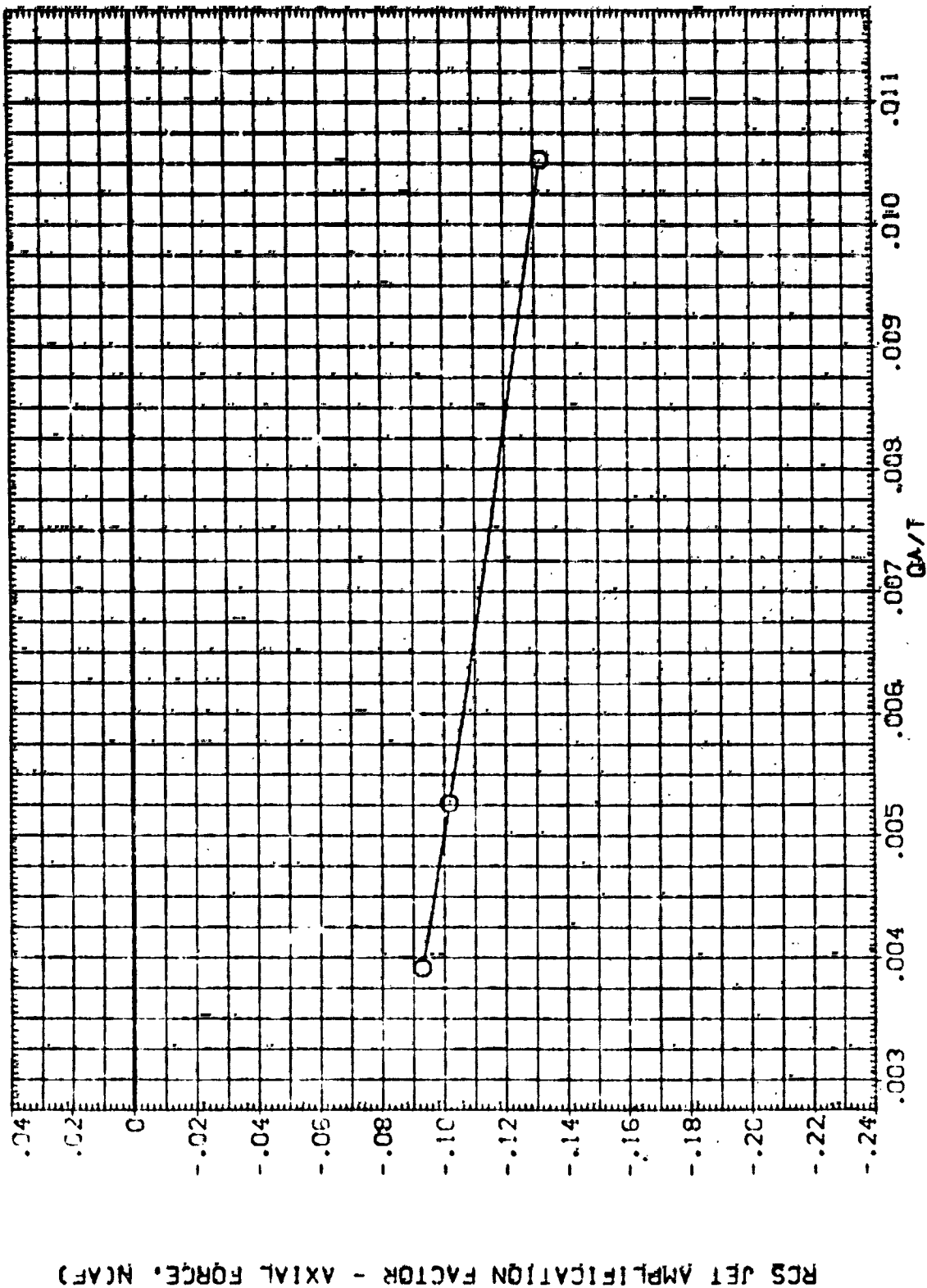


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(M)ALPHA = 15.00

DATA SET SYMBOL: GENB4
 CONFIGURATION DESCRIPTION: LARC CPM1 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 IN. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. TO
 YMRP: .0000 IN. TO
 ZMRP: 375.0000 IN. TO
 SCALE: .0100

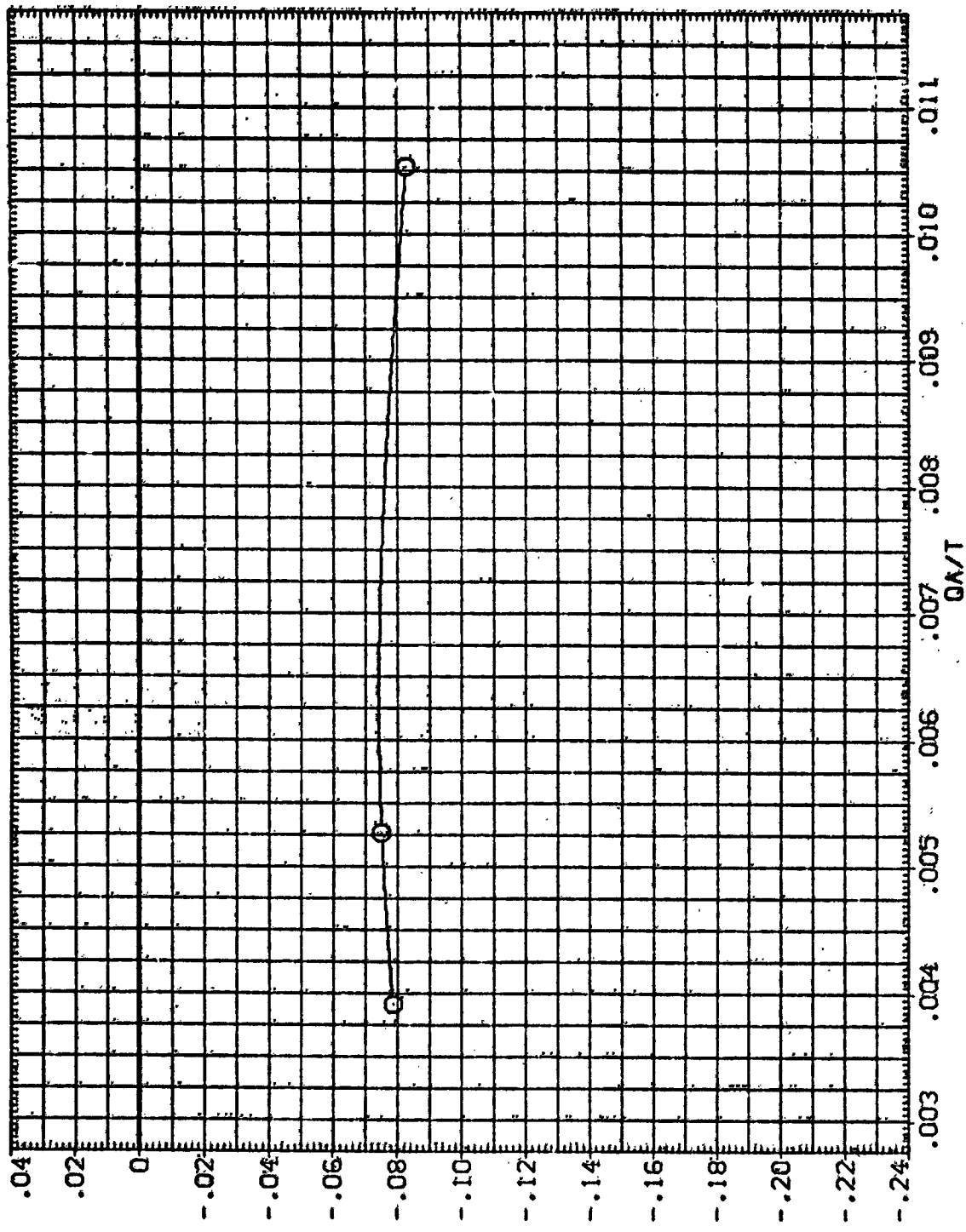


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(L)ALPHA = 20.00

DATA SET SYMBOL (SJA011) 01N84

CONFIGURATION DESCRIPTION LARC CFM8 118 (MA-22)

ELEVON .000

NO. JET 2.000

80FLAP .000

BETA .000

REFERENCE INFORMATION

SREF 2680.0000 50. FT.

LREF 474.8000 INCHES

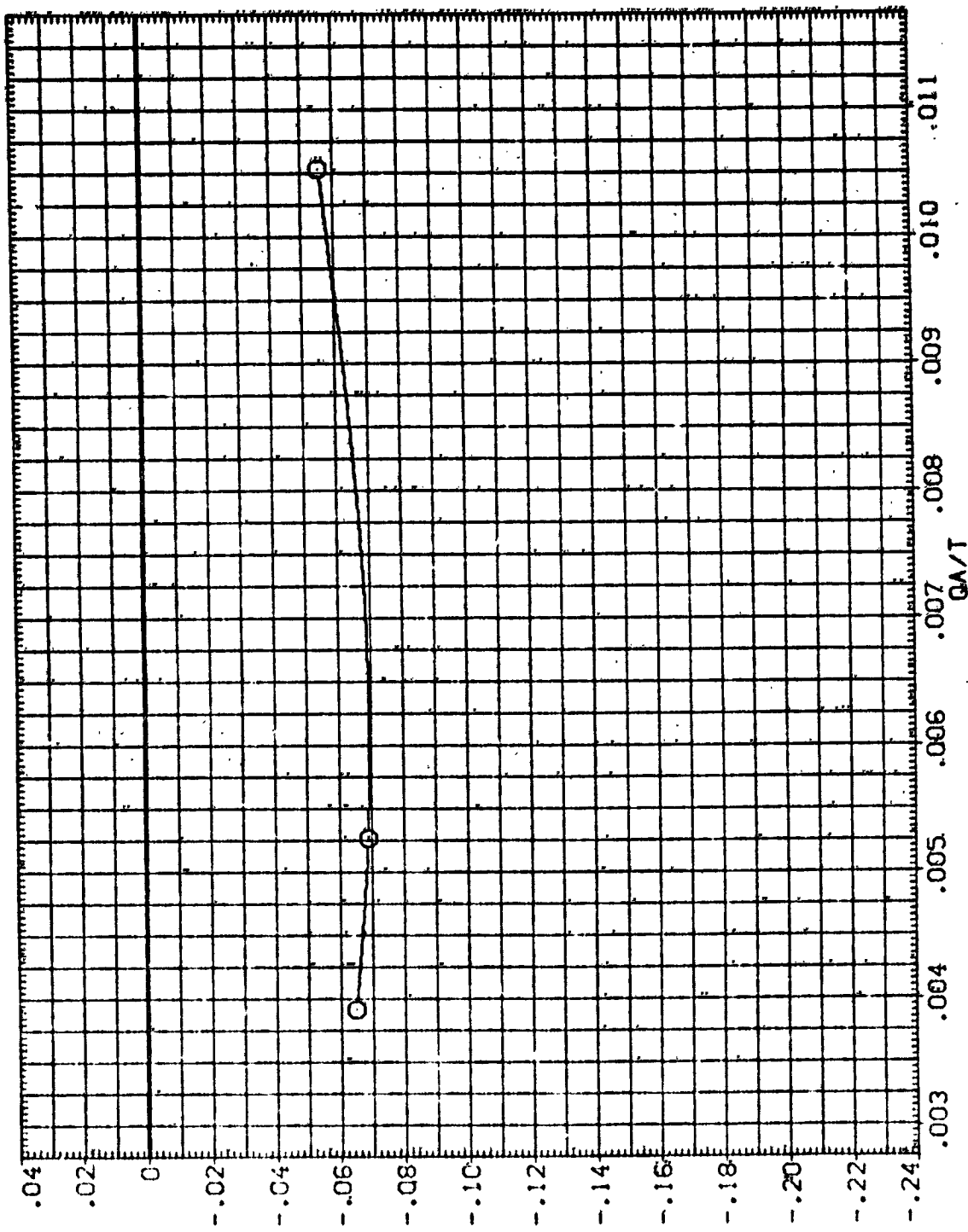
BREF 936.6800 INCHES

XMRP 1076.7000 IN. 40

YMRP .0000 IN. 10

ZMRP 373.0000 IN. 20

SCALE .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCAF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(M)ALPHA = 25.00

RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCAF

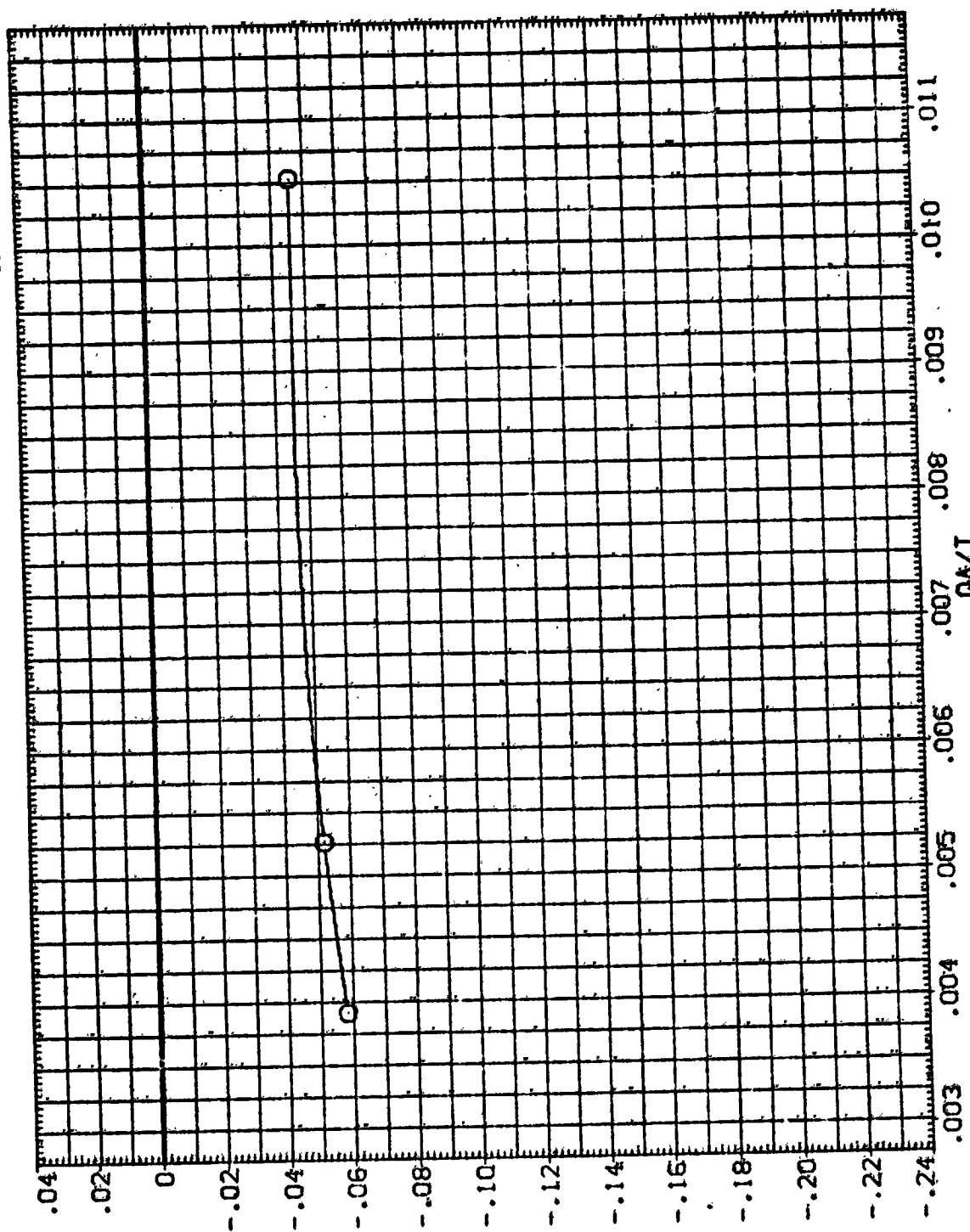


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(N)ALPHA = 30.00

DATA SET SYMBOL (S)ADN1) O 01N84

CONFIGURATION DESCRIPTION LARC CFHT 118 (MA-22)

ELEVON .000 NO JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION

	SO. FT.	INCHES
SREF	2680.0000	INCHES
LREF	474.8000	INCHES
BREF	936.6800	IN. X0
XHRP	1076.2000	IN. Y0
YHRP	.0000	IN. Z0
ZHRP	325.0000	IN. Z0
SCALE	.0100	

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	80FLAP	BETA	REFERENCE INFORMATION
(SJA011) O	OLNBA LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	SRF 2690.0000 50 FT
						LRP 474.8080 INCHES
						SRP 936.5800 INCHES
						YMRP 1076.2000 IN. YD
						YMRP .0000 IN. YD
						ZMRP 375.0000 IN. ZD
						SCALE .0100

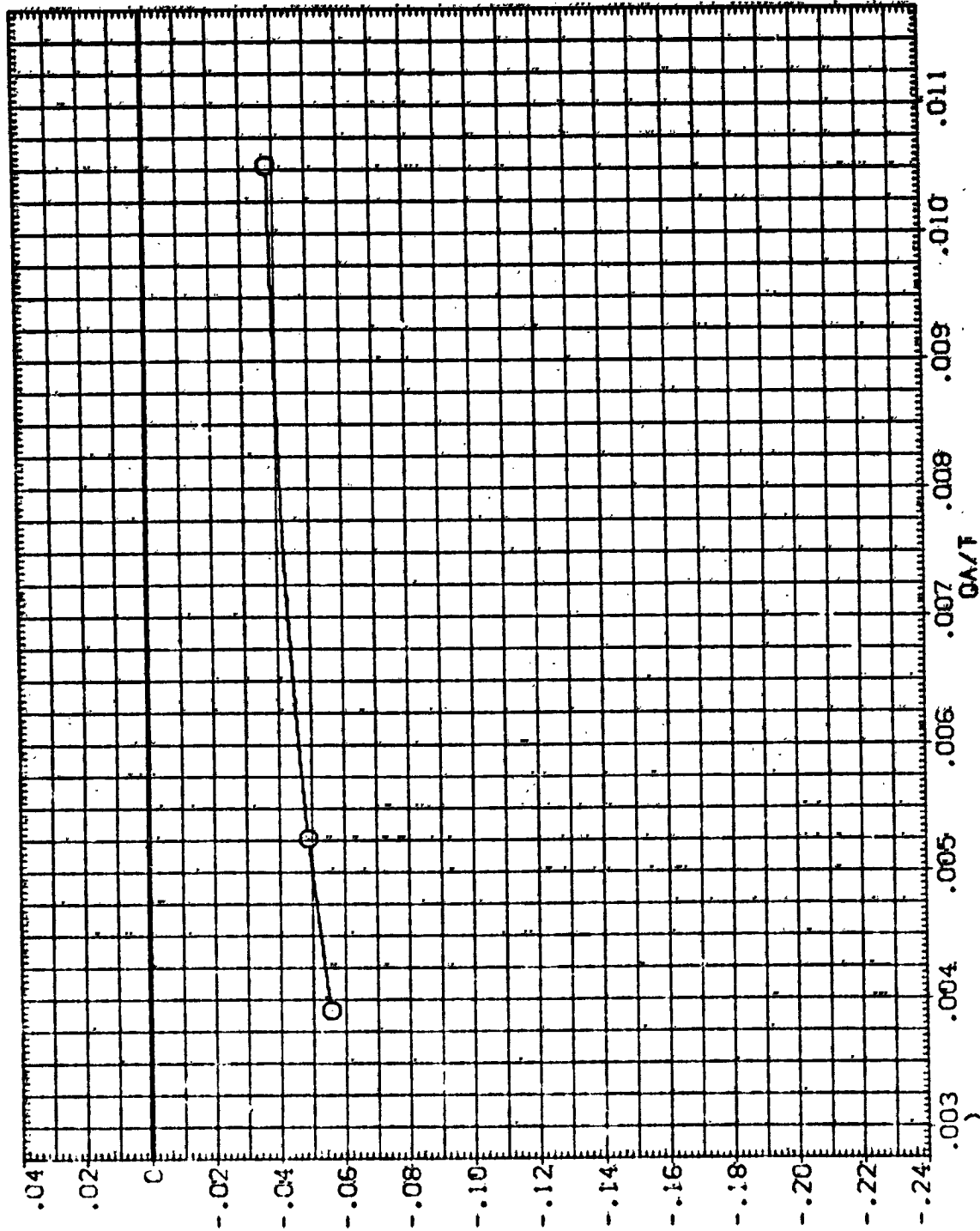
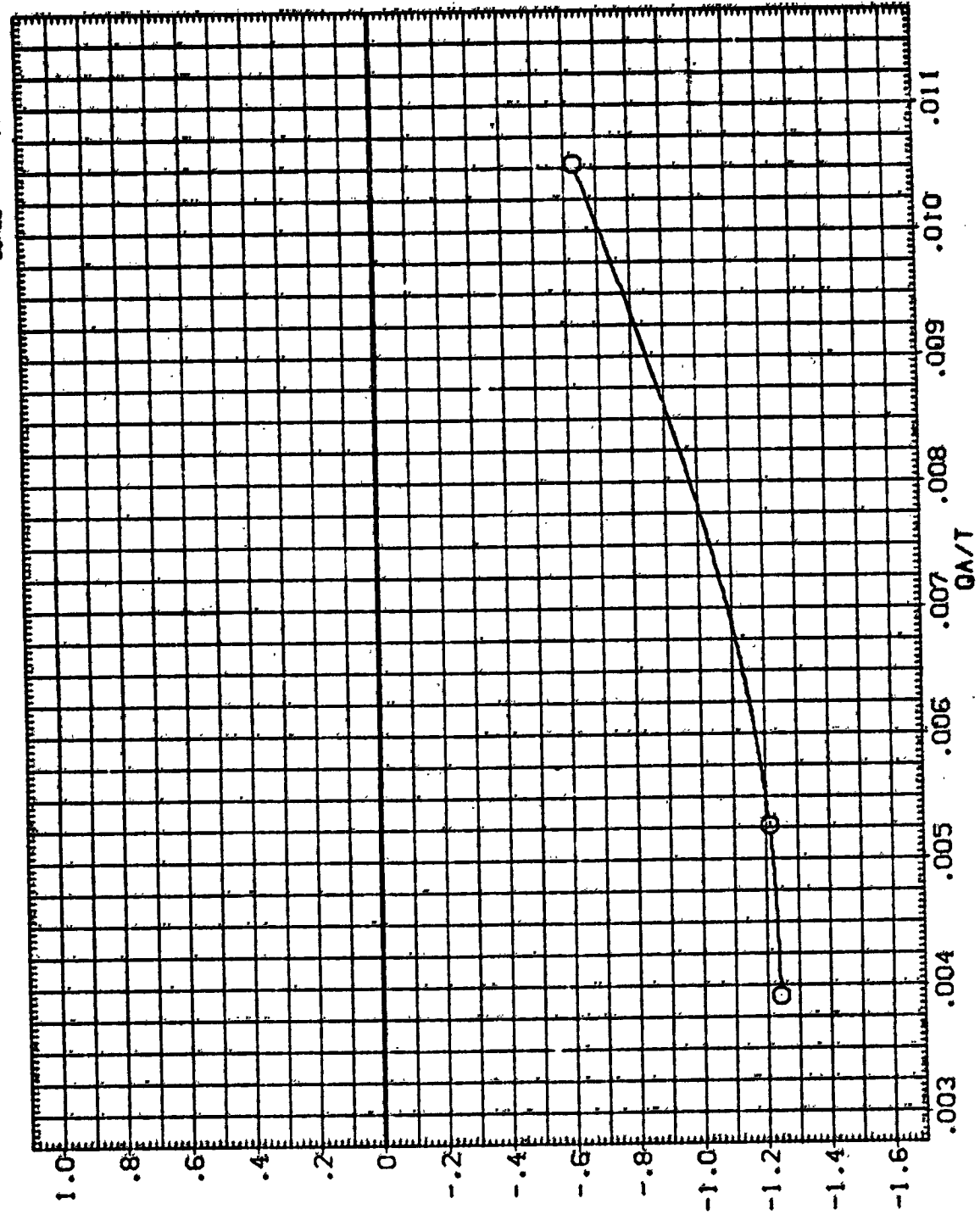


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84
(O)ALPHA = 35.00

DATA SET SYMBOL (S1811) 0
 CONFIGURATION DESCRIPTION LARC CFMT 118 (HA-22)
 NO. JET 2.000
 BOFLAP .008
 BETA .000
 ELEVATION .000
 REFERENCE INFORMATION
 SREF 2691.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6000 INCHES
 XPRP 1076.7000 IN. X0
 YPRP .0000 IN. Y0
 ZPRP 375.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, NCRM

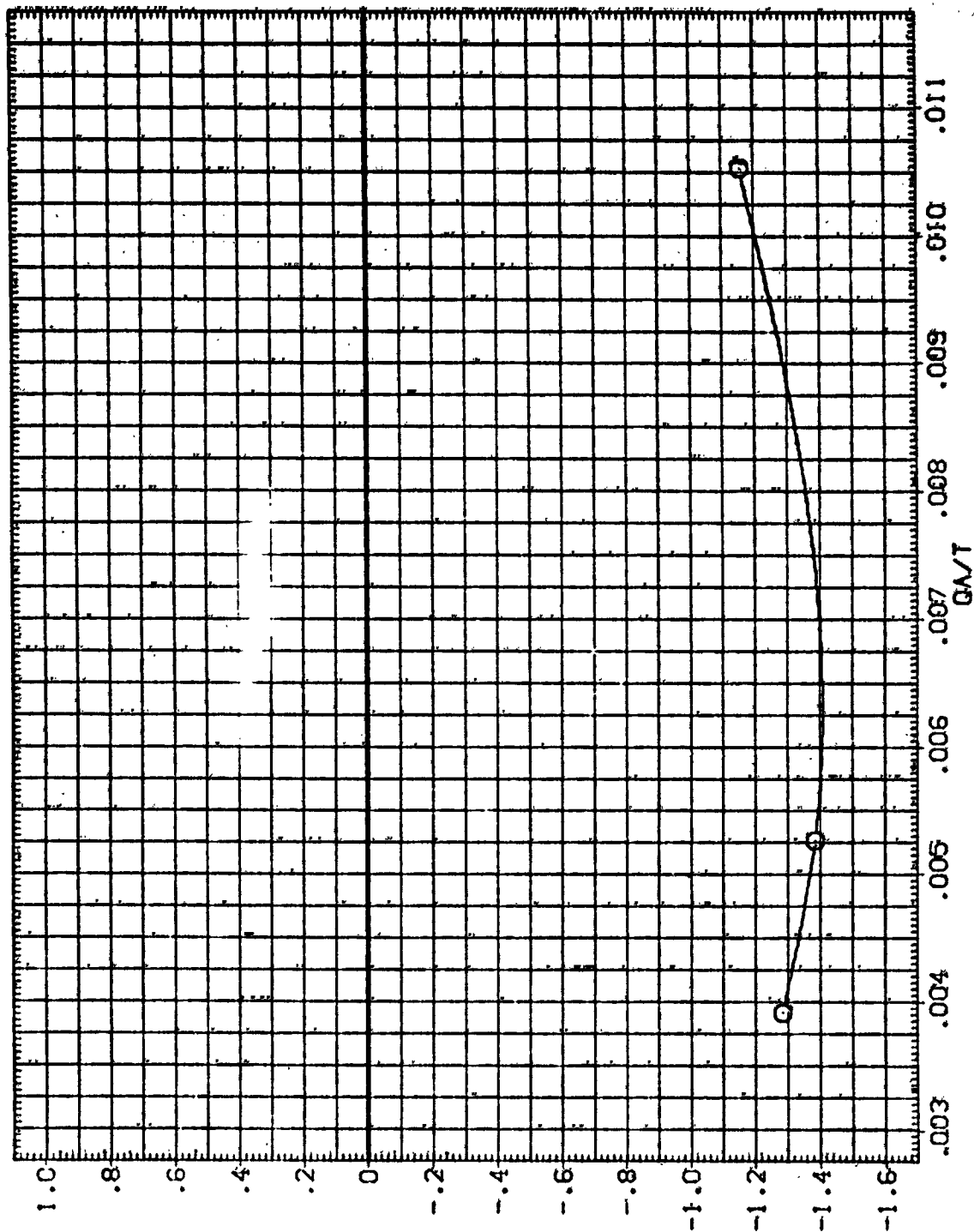
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(α) ALPHA = -8.00

DATA SET SYMBOL (9/A011) \odot Q1N84 CONFIGURATION DESCRIPTION LARC CFMT 11B (HA-22)

ELEVON .000 NO. JET 2.000 BDFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1876.7000 IN. XG
 YMRP .0000 IN. YG
 ZMRP 325.0000 IN. ZG
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, N RM

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(B) ALPHA = -6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA811) O 01N84 LARC CPHT 118 (MA-22)

ELEVON .000 NO JET 2.000 BDFLAP .000 BETA .000

REFERENCE INFORMATION
SREF 2590.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1026.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100

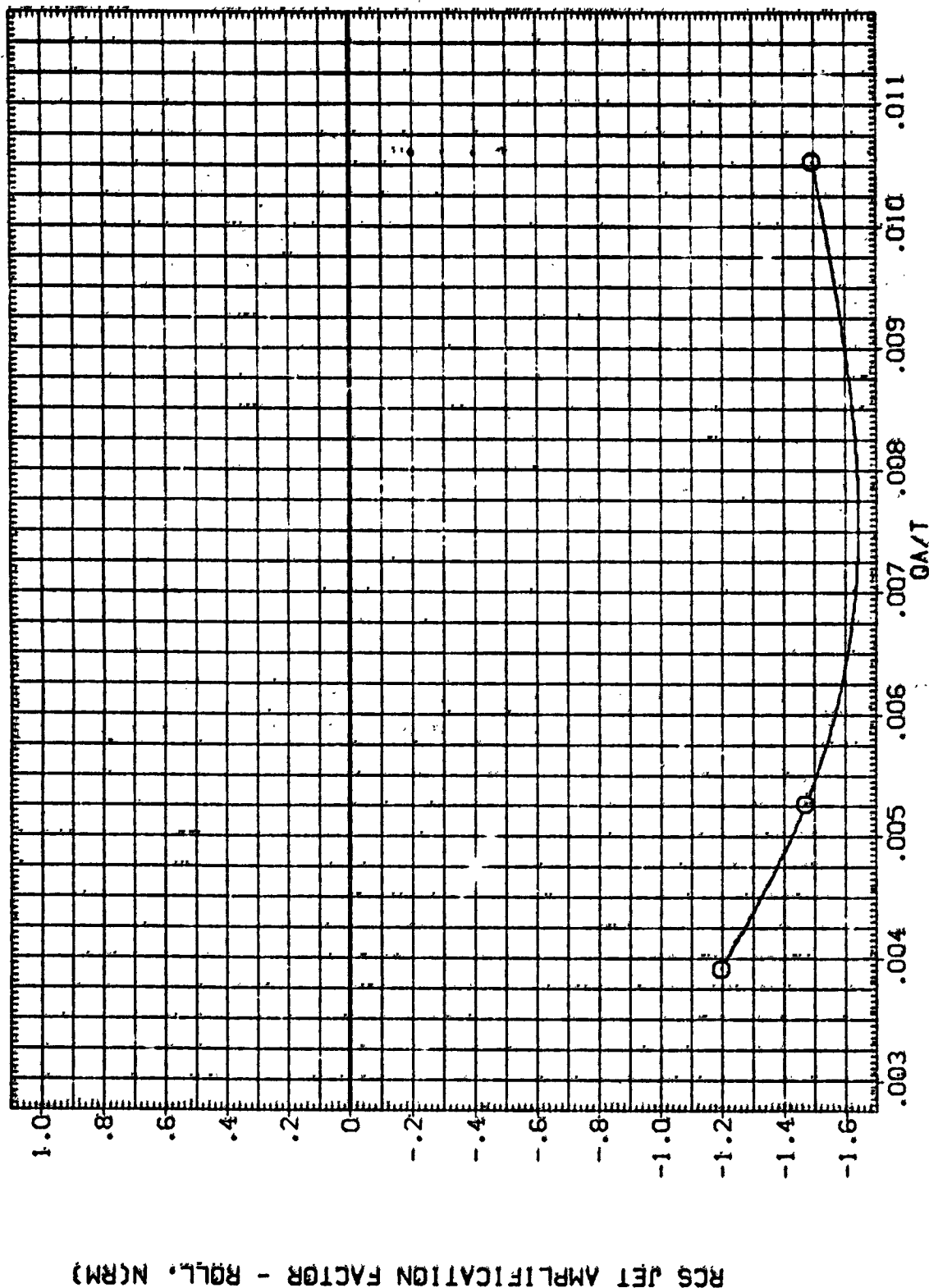
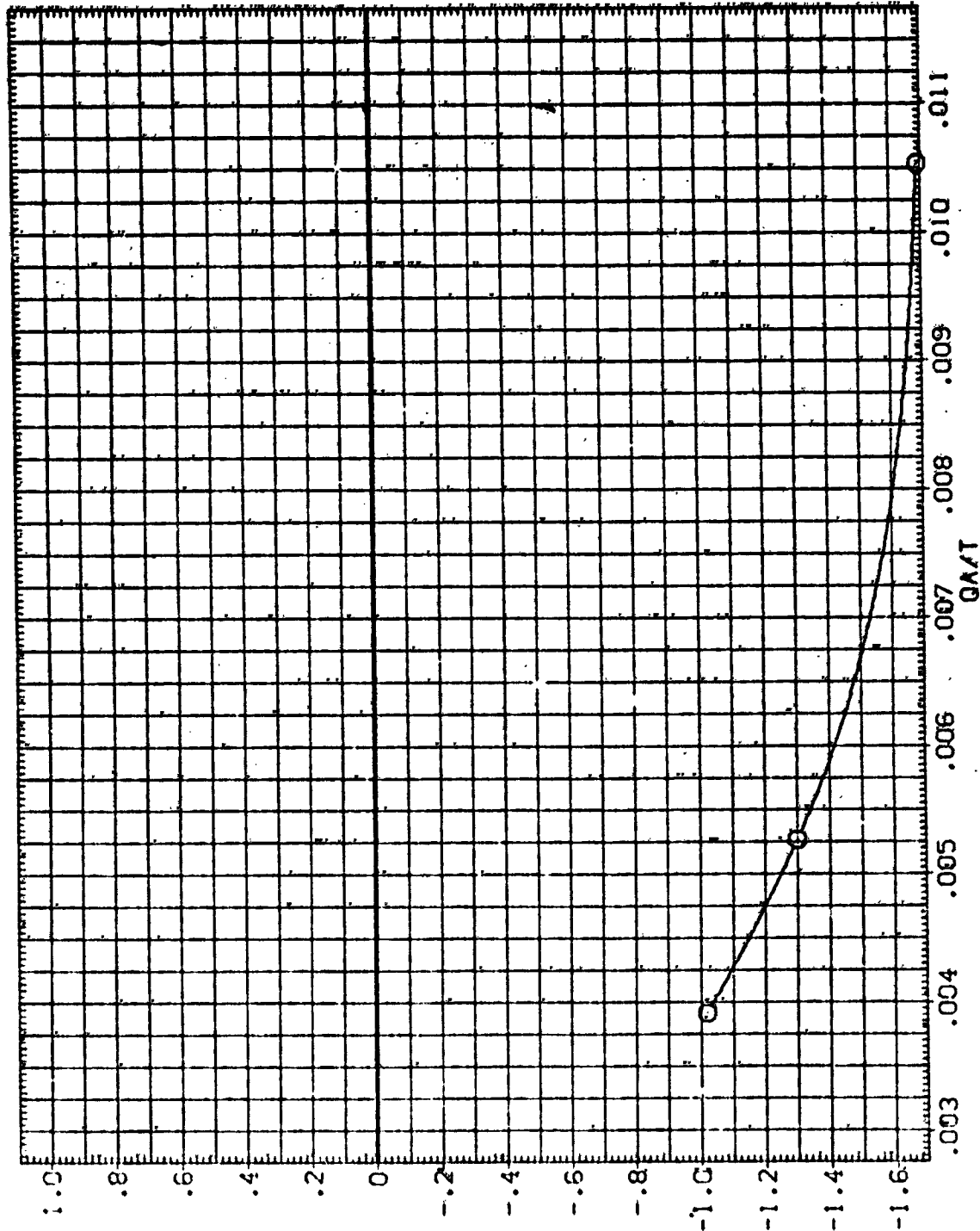


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(CJALPHA = -4.00)

DATA SET SYMBOL (SJA011) 0 01N84 CONFIGURATION DESCRIPTION LARC CFHT 118 (MA-22)

ELEVON .000 NO JET 2.000 BFLAP .000 BETA .000
 REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. NO
 YMRP .0000 IN. YD
 ZMRP 375.0000 IN. ZD
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - RQL, NCRM)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(O) ALPHA = -2.00

DATA SET SYMBOL (SJM011) O QIN84 LARC CENT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1676.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

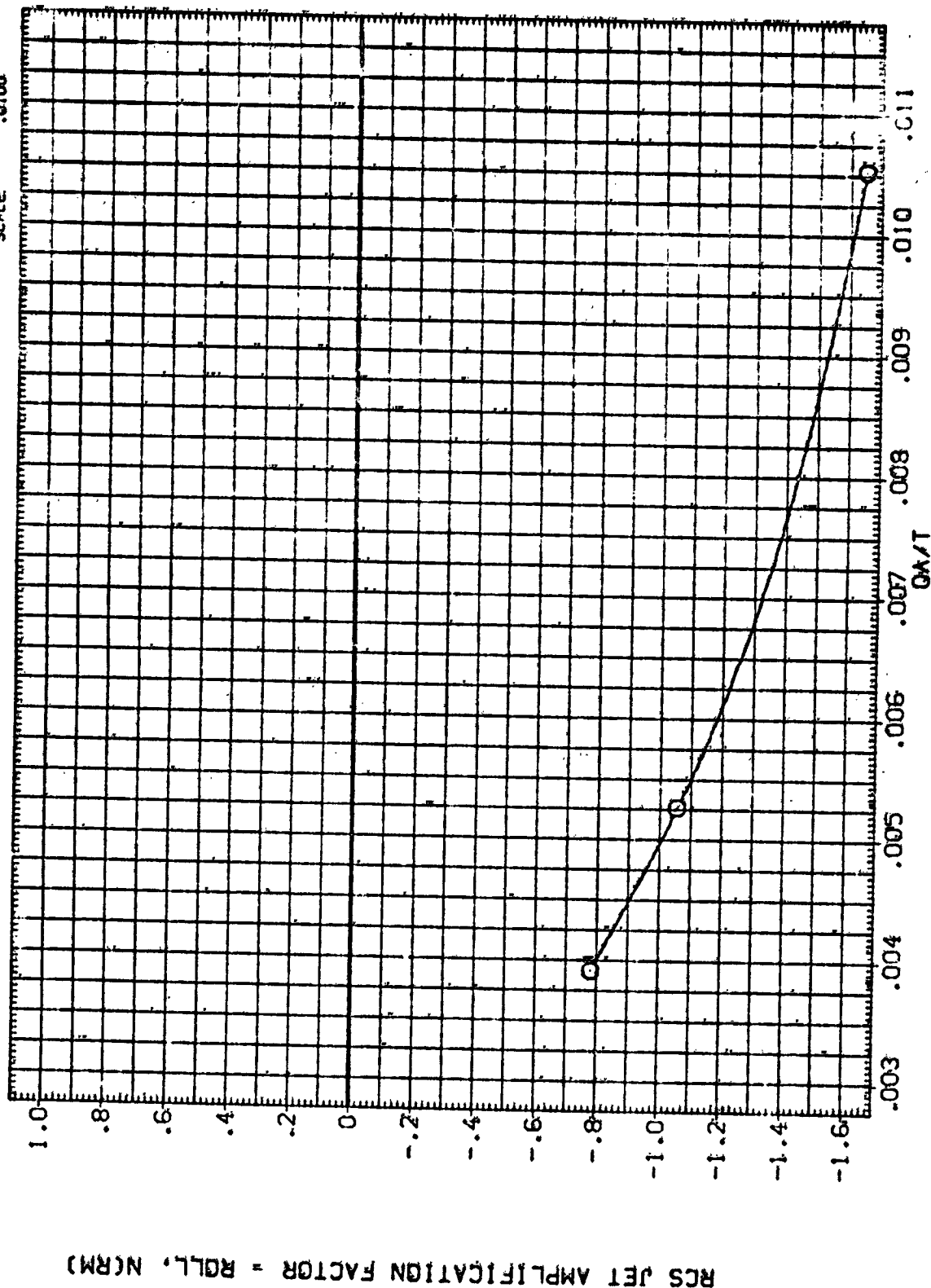
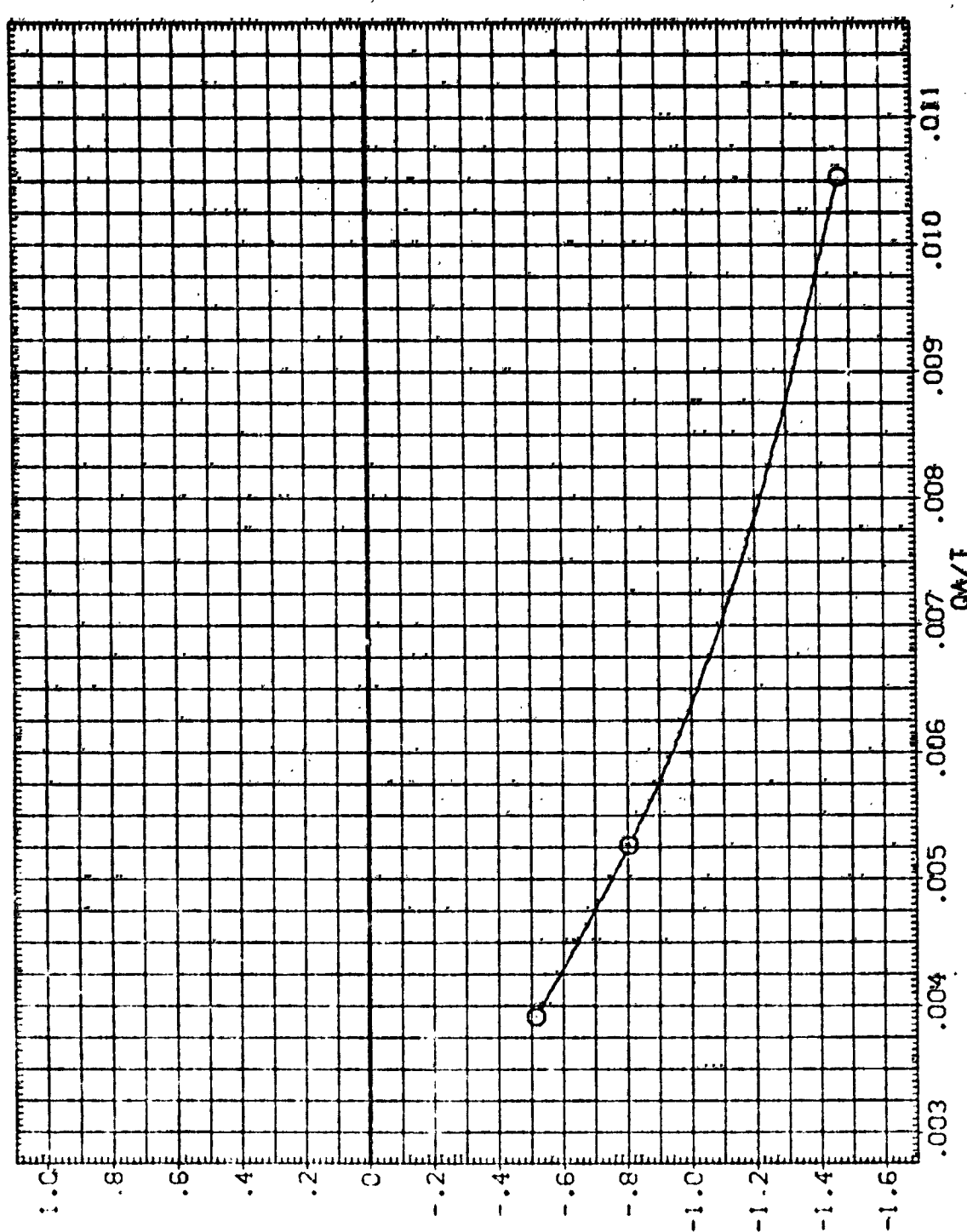


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(E) ALPHA = .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BEYA	REFERENCE INFORMATION
(E)A011) O	CIN84 LARC CFM1 118 (HA-22)	.000	2.000	.000	.000	SREF 2690.0000 SQ.FT. LREF 474.8000 INCHES BREF 936.6800 INCHES XMRP 1076.7000 IN. X0 YMRP .0000 IN. Y0 ZMRP 379.6000 IN. Z0 SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL (NRM)

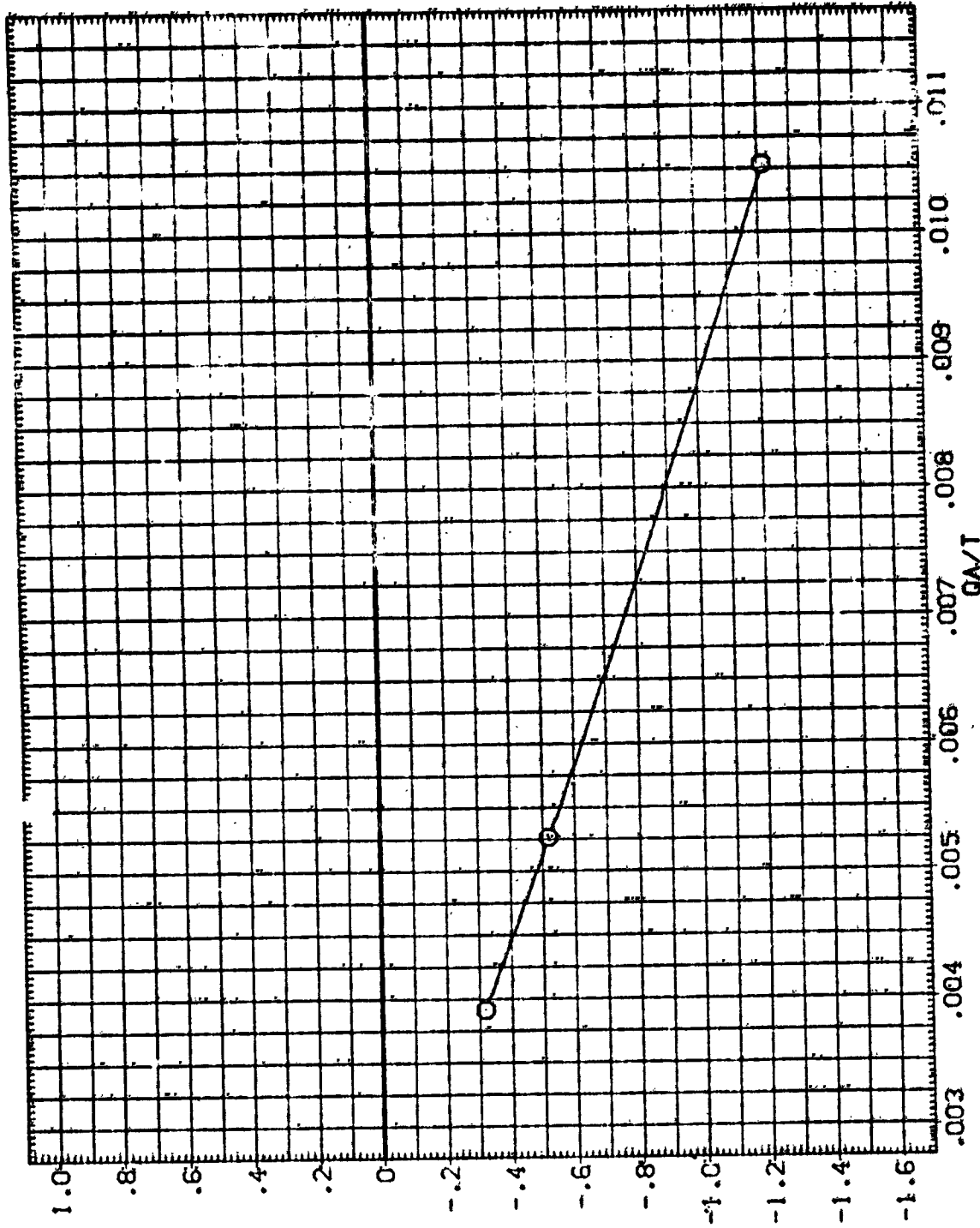
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84
(F)ALPHA = 2.00

DATA SET SYMBOL (SJA811) \odot GIN84

CONFIGURATION DESCRIPTION LARC CFMT 118 (MA-22)

ELEVON .000 NO. JET 2.000 30FLAP .080 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 918.6800 INCHES
 XMRP 1076.7000 IN. YD
 YMRP .0000 IN. YD
 ZMRP 373.0800 IN. ZD
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, N(RM)

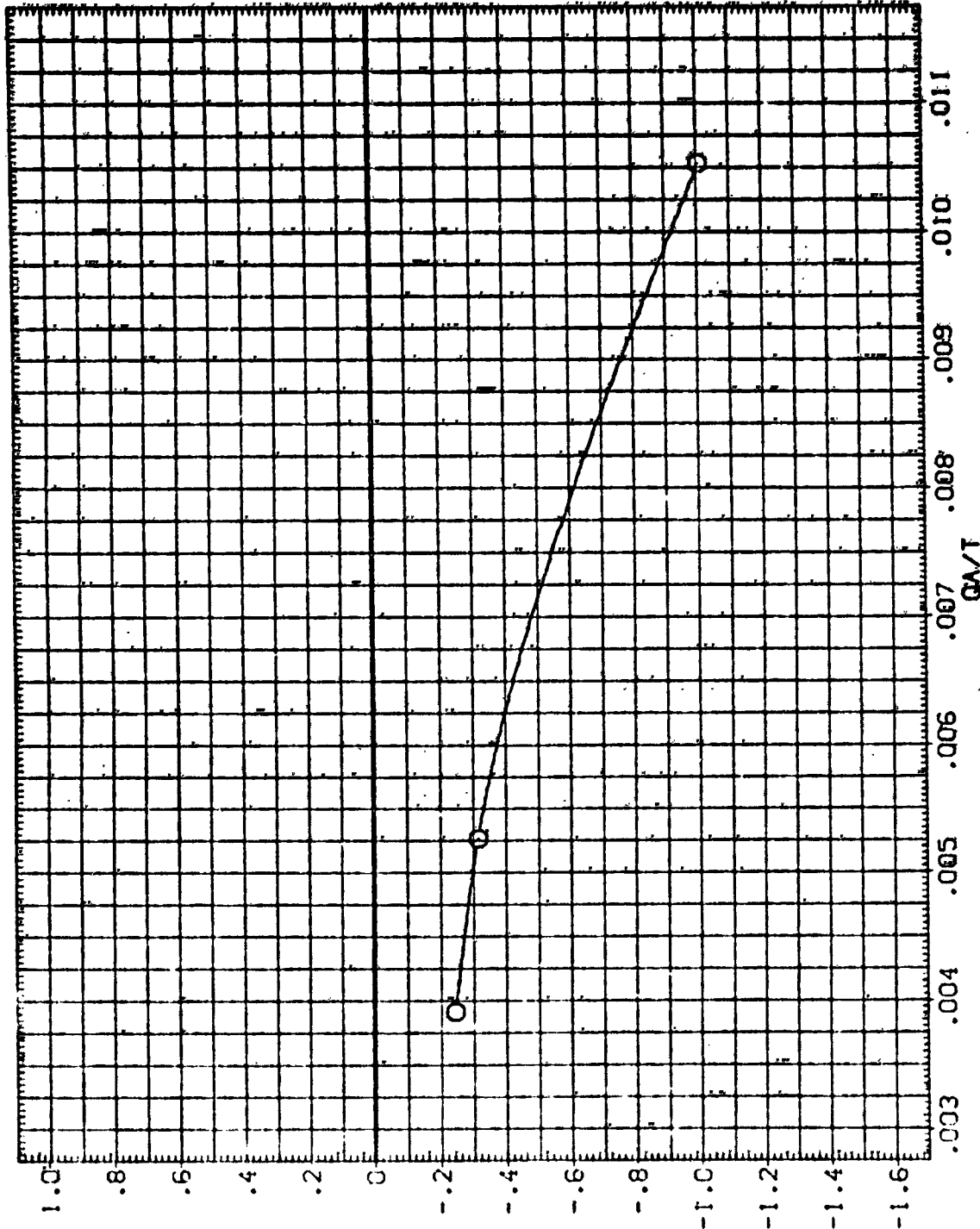
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(G)ALPHA = 4.00

DATA SET SYMBOL: 0 CIN84
 CONFIGURATION DESCRIPTION: LARG CFMT 118 (NA-22)

ELEVON: .000
 NO JET: 2.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 935.6800 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 393.0000 IN. Z0
 SCALE: .0100



RCS JET AMPLIFICATION FACTOR - ROLL, NORM

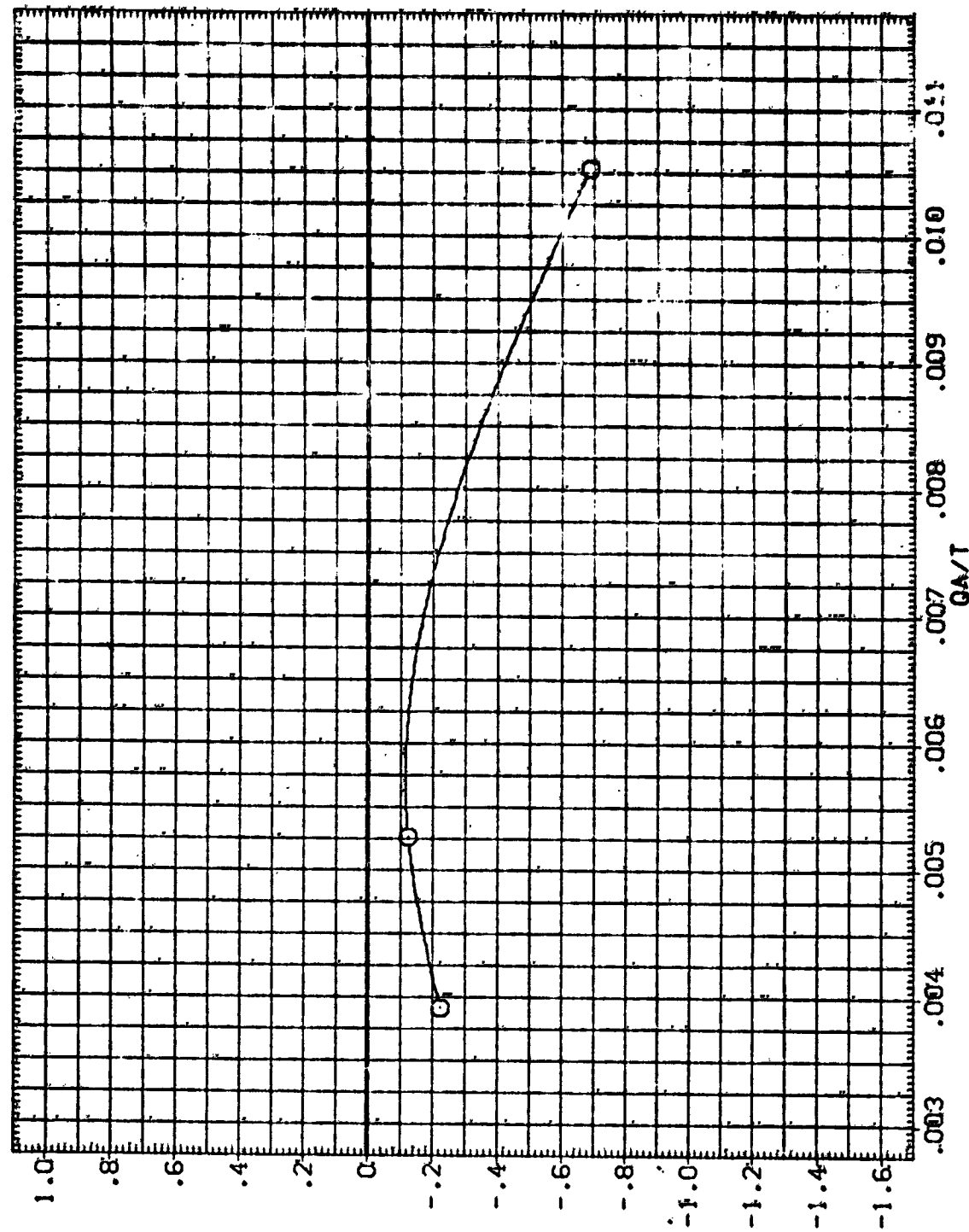
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(H)ALPHA = 6.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA011) O Q184 LARC CPHT 118 (MA-221)

ELEVON NO. JET BOFLAP BETA
.000 2.000 .000

REFERENCE INFORMATION
SREF 2690.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XPRP 1076.7000 IN. AD
YPRP .0000 IN. VD
ZPRP 375.0000 IN. ZD
SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, NORM

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(1) ALPHA = 8.00

DATA SET SYMBOL (S)011) 0 01N84 LARC CFMT 118 (MA-22)

ELEVON NO JET 2.000 BOW LAP 0.000 BETA 0.000

REFERENCE INFORMATION
 SREF 2650.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 916.6800 INCHES
 XREF 1076.7000 IN. X0
 YREF 0.0000 IN. Y0
 ZREF 375.0000 IN. Z0
 SCALE 0.000

RCS JET AMPLIFICATION FACTOR - ROLL, NUTM)

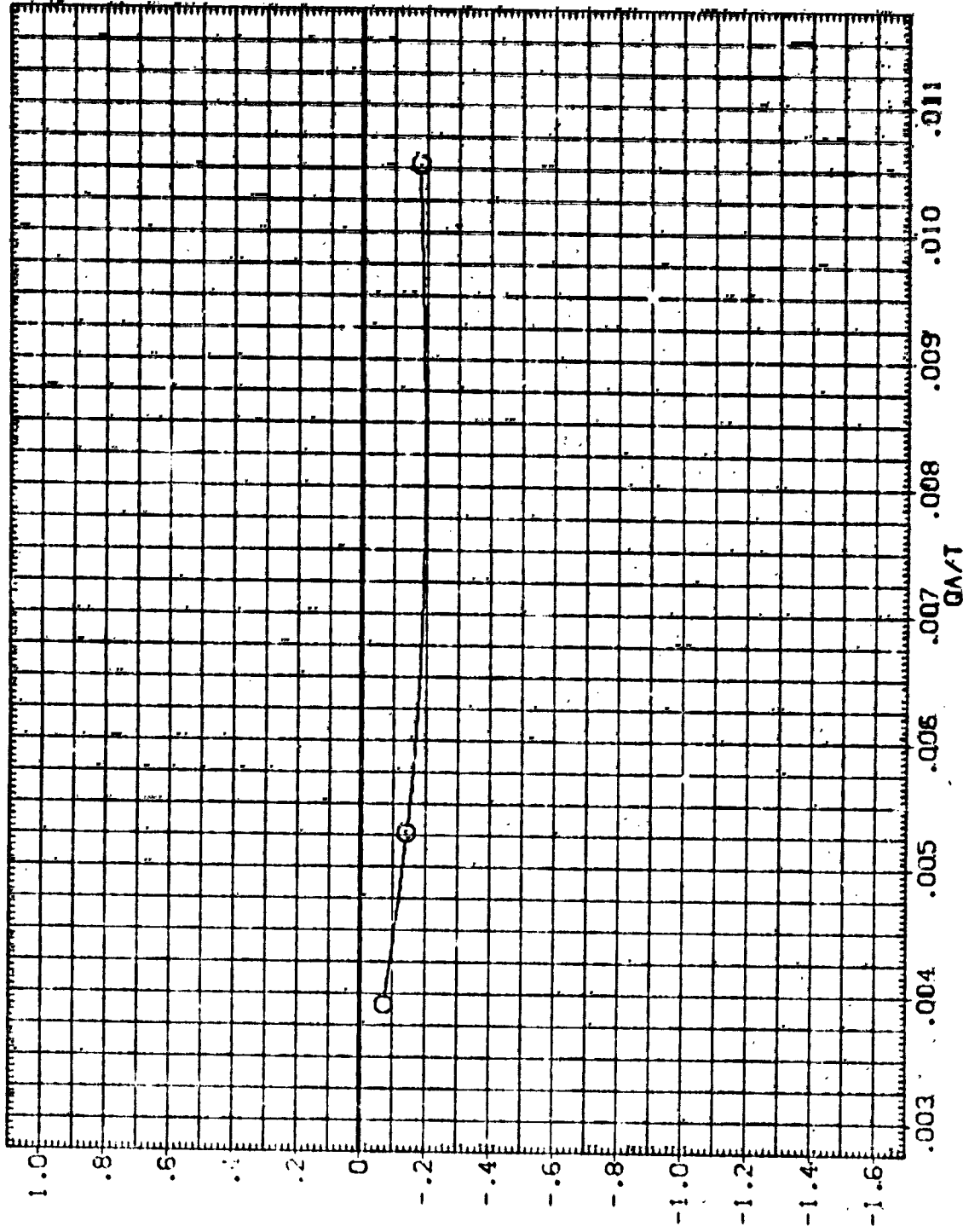
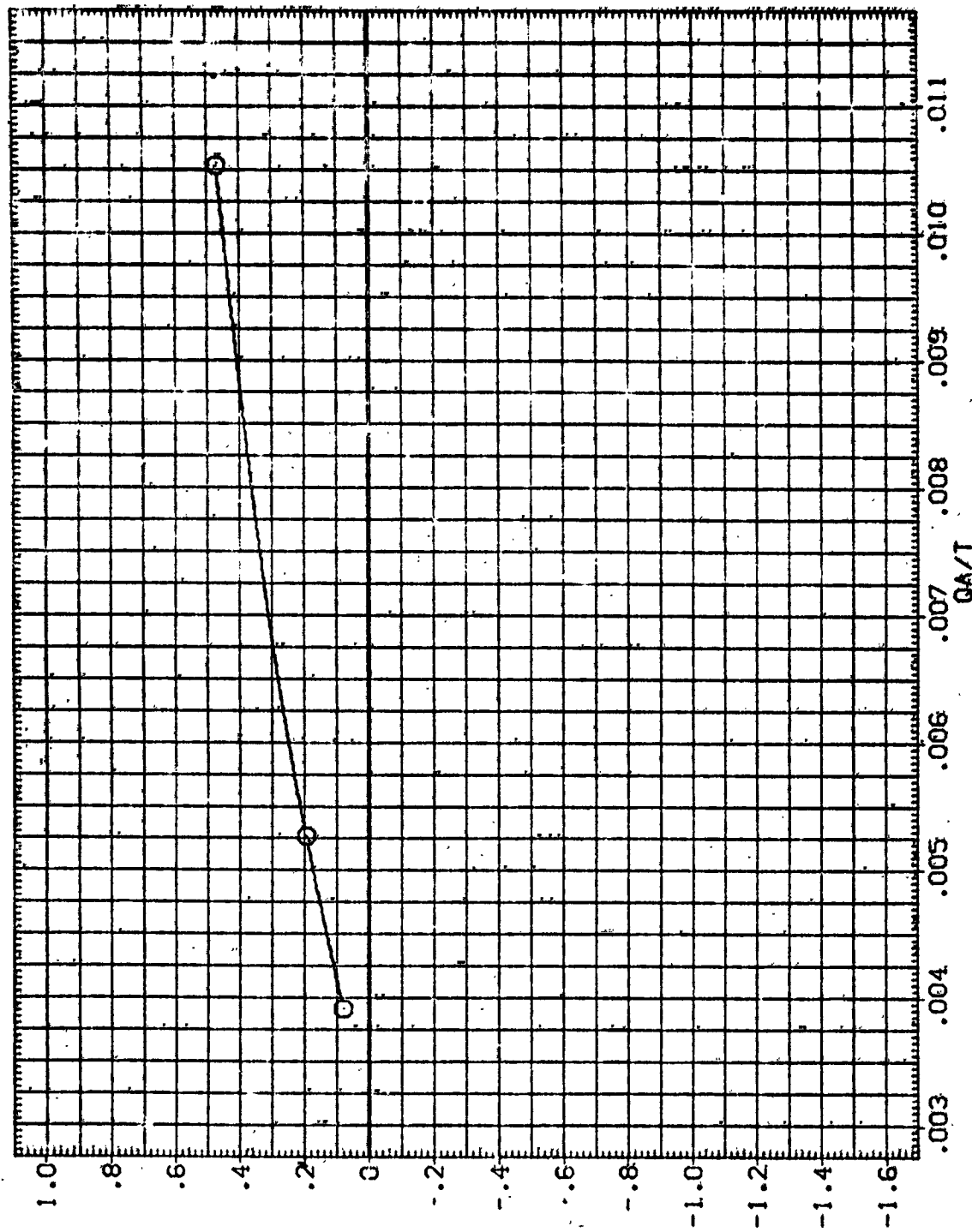


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(J)ALPHA = 10.00

DATA SET SYMBOL COMPUTATION DESIGNATION
 (SJA011) 0 01N84 LARC CFHT 118 (NW-22F)
 ELEVATION WIND WAVE BUOY TYPE BUOY NO. WAVE NO. WAVE NO.
 METEOROLOGICAL INFORMATION
 SREF 2690.0000 50.00
 LREF 474.8000 INCHES
 BREF 938.6800 INCHES
 XREF 1076.7000 IN. X0
 YREF 375.8000 IN. Y0
 ZREF 375.8000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, NIRM

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

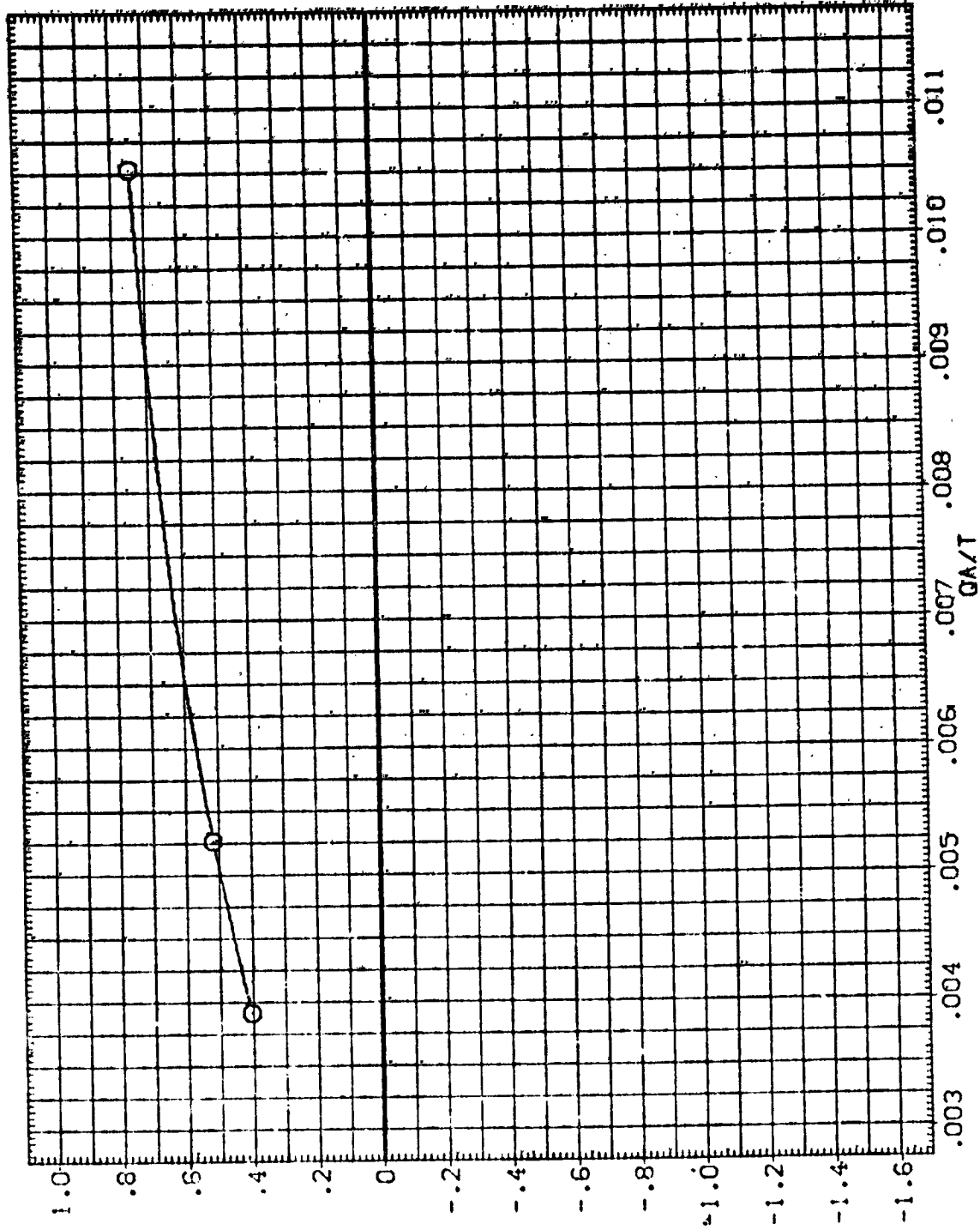
(K)ALPHA = 15.00

DATA SET SYMBOL (SJA011) \emptyset 01N84 CONFIGURATION DESCRIPTION LARC CFHT 118 (MA-22)

ELEVON .000 NR.JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION

SREF	2630.0000	50. FT.
LREF	474.8000	INCHES
BREF	976.6800	INCHES
XMRP	1076.7000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	375.0000	IN. Z0
SCALE	.0100	



RCS JET AMPLIFICATION FACTOR - ROLL, NCRM

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(L)ALPHA = 20.00

DATA SET SYMBOL (SIA011) \emptyset CLINGR LARC CFHT 116 (MA-22)
 ELEVON .000 NO. JET 2.000
 WING LAR .000
 WING MA .000
 WING SCALE .0100
 SREF 2690.0000 50. FT.
 LREF 474.8000 INCHES
 BREF 936.8000 INCHES
 XMRP 1076.7000 IN. YG
 YMRP .0000 IN. YG
 ZMRP 375.0000 IN. ZD

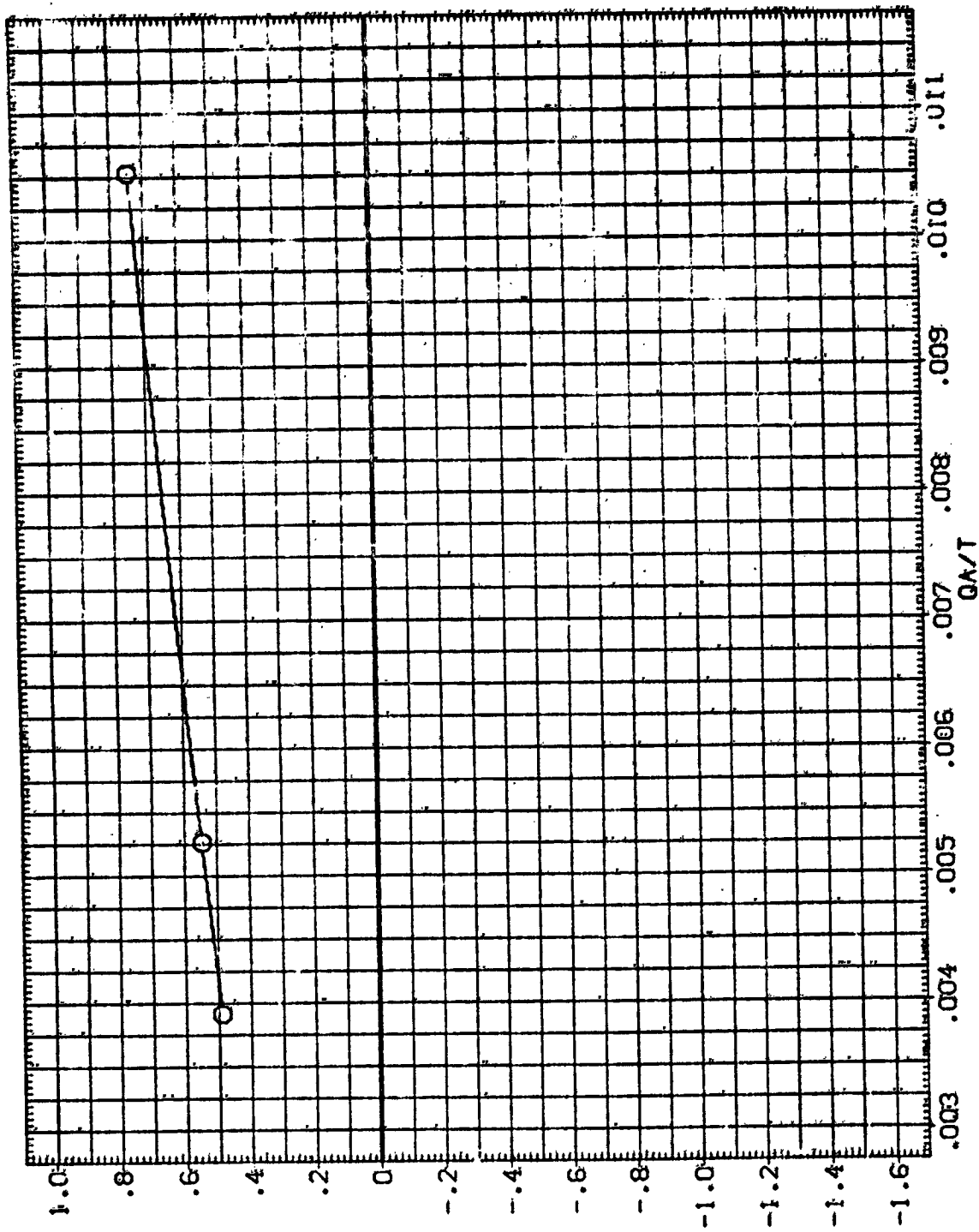


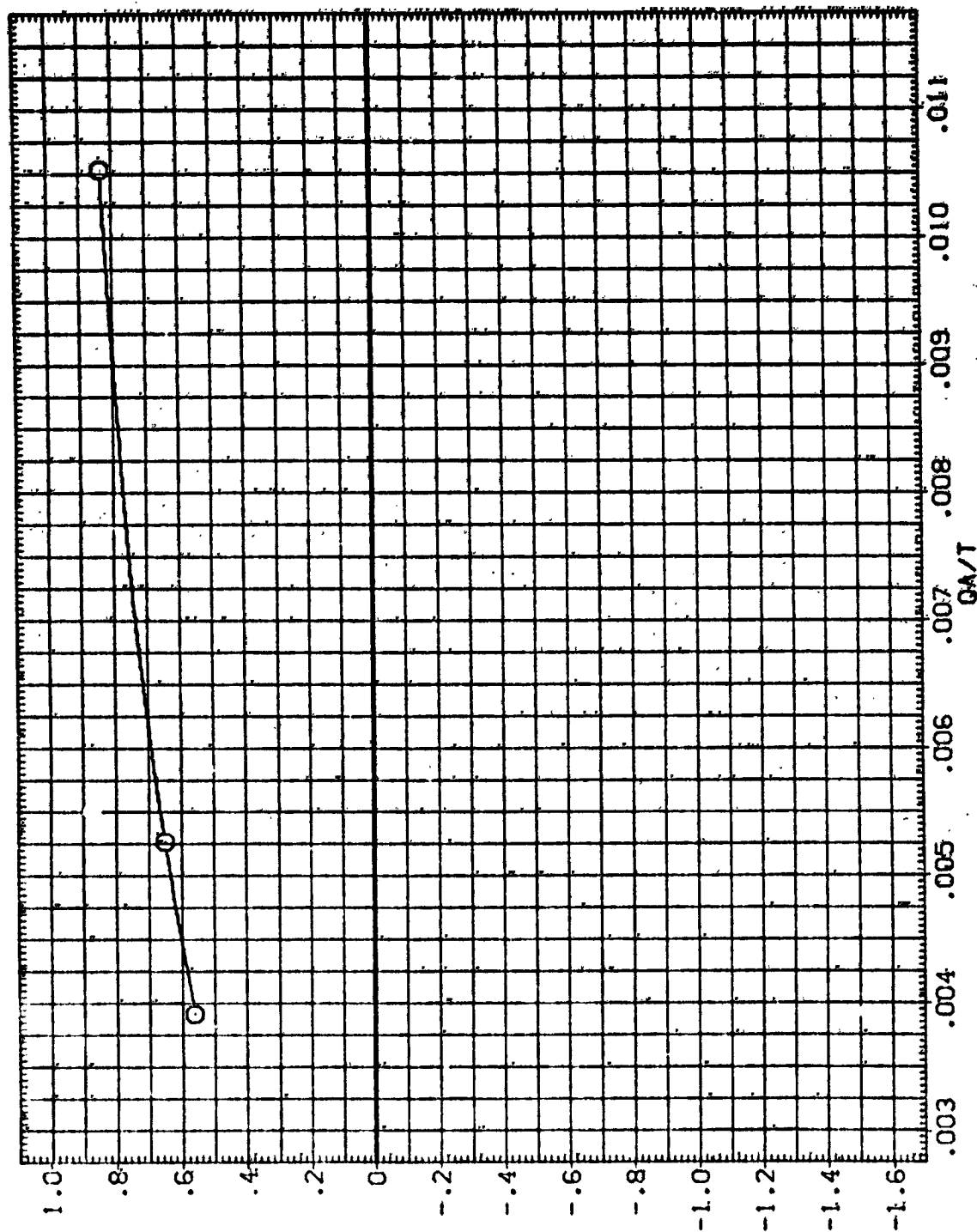
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(M) ALPHA = 25.00

DATA SET SYMBOL: 01N84
 CONFIGURATION DESCRIPTION: LAR CHT 118 (MA-227)

ELEVON: .000
 NO. JET: 2.000
 BDFLAP: .000
 BETA: .000

REFERENCE INFORMATION
 SREF: 2690.0000 SQ. FT.
 LREF: 474.8000 INCHES
 BREF: 938.6800 INCHES
 XMRP: 1076.2000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 393.0000 IN. Z0
 SCALE: .0100



RCS JET AMPLIFICATION FACTOR - ROLL, NRM)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

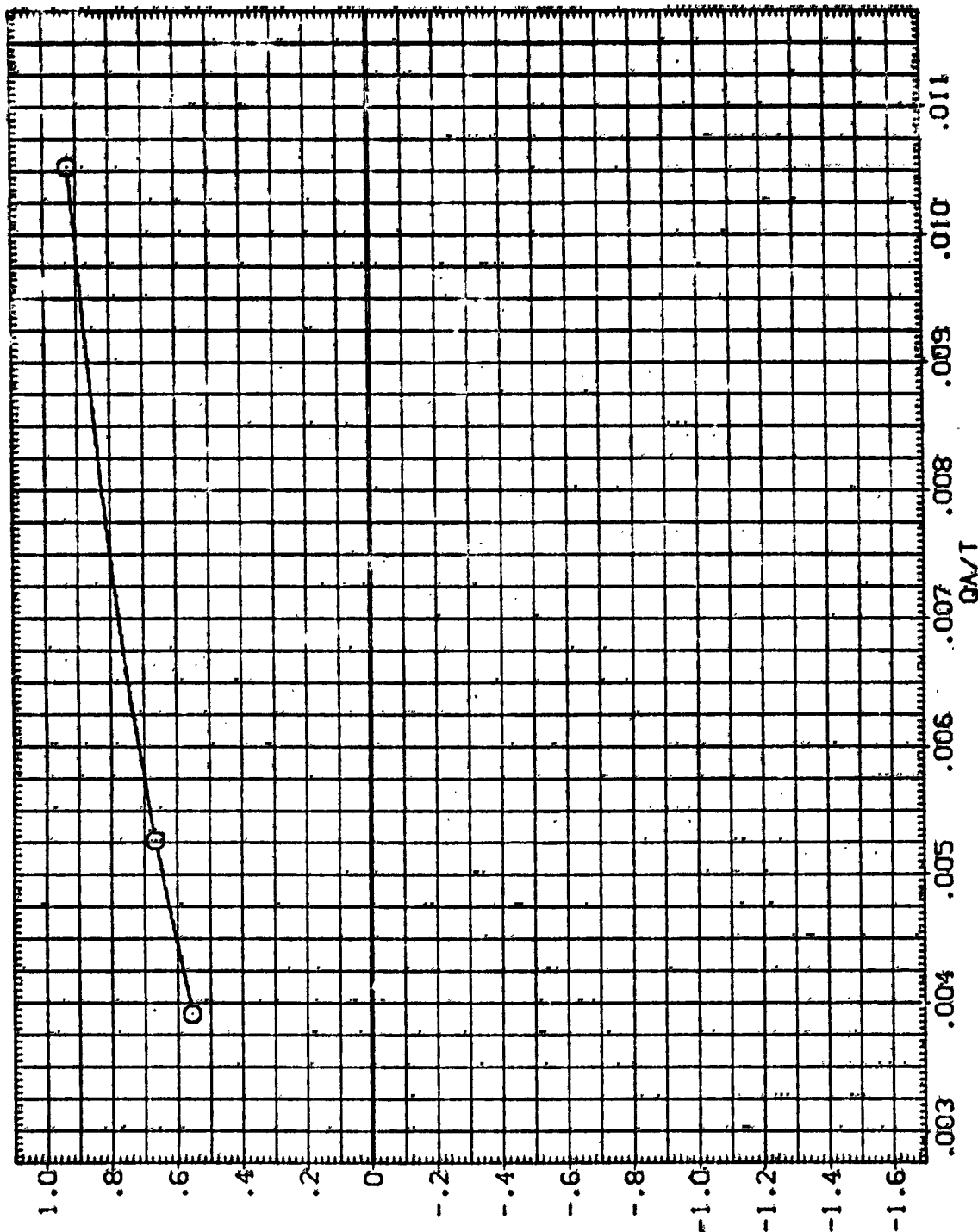
(NJALPHA = 30.00

DATA SET SYMBOL (SJA011) \bigcirc QIN84

CONFIGURATION DESCRIPTION LARE CFHT 118 (MA-22)

ELEVON .000 NO JET 2.000 BDF LAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 325.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, NCRM

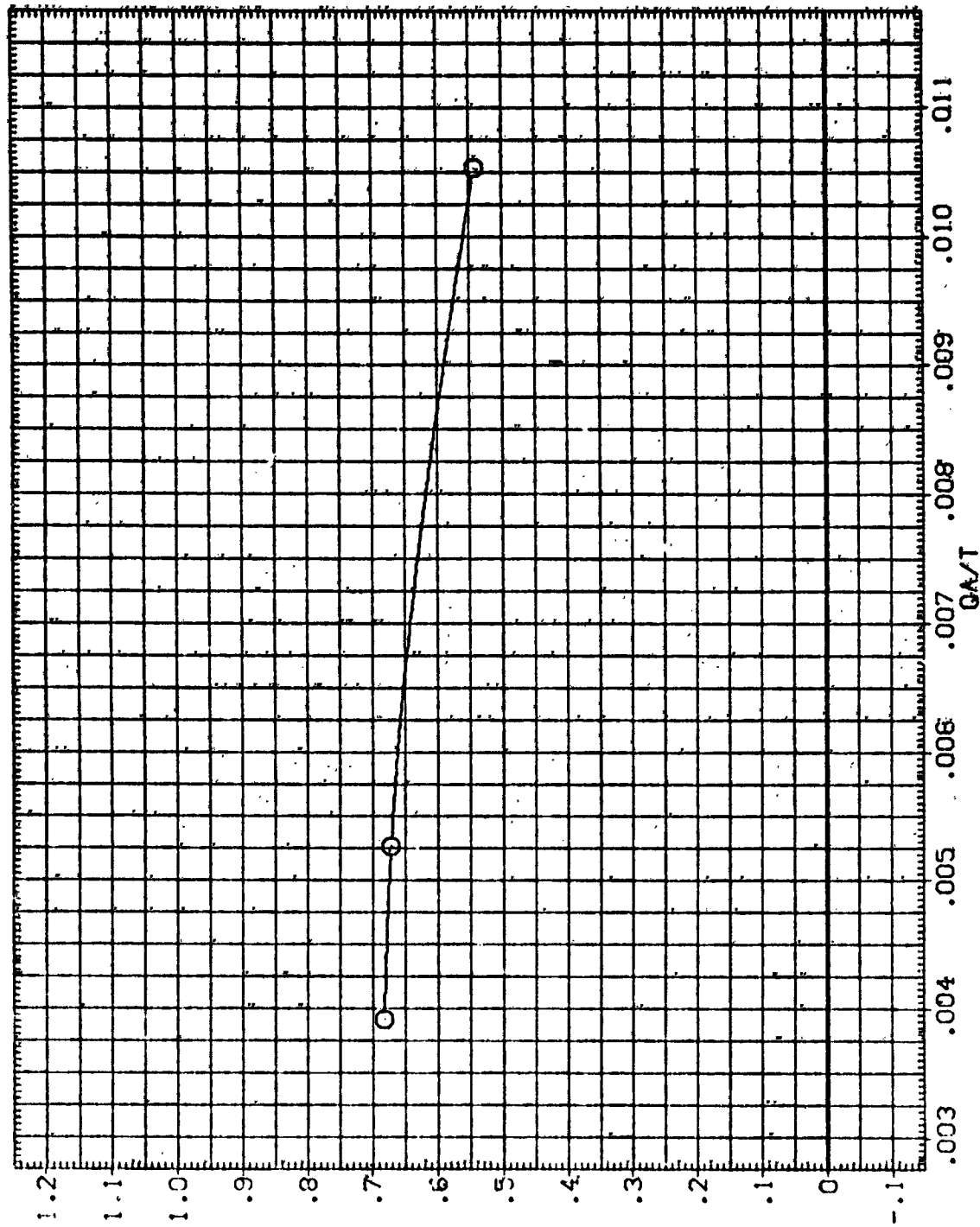
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(α) ALPHA = 35.00

DATA SET SYMBOL (S/A011) ☐ Q1N84 CONFIGURATION DESCRIPTION LARC CFHT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BSFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.5800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 325.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, NCM)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(A) ALPHA = -8.00

DATA SET SYMBOL (SJA011) \bigcirc Q1N84

CONFIGURATION DESCRIPTION LARC CFHT 118 (MA-22)

ELEVON .000 NO JET 2.080 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SO.FT.
 LREF 474.8000 INCHES
 BRFP 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - YAW, NCYM)

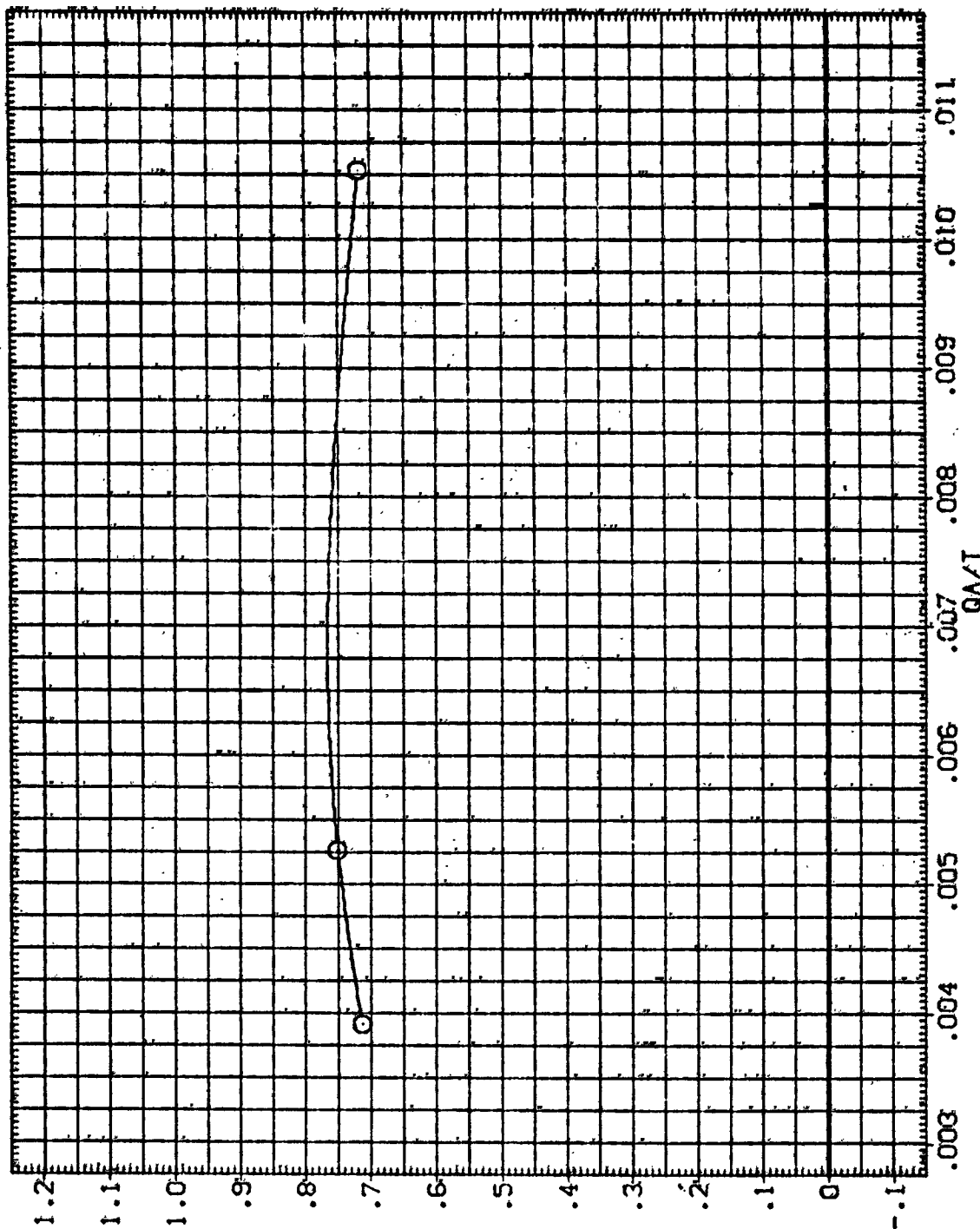


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(B) ALPHA = -6.00

DATA SET SYMBOL (S0A011) \bigcirc 01N84 CONFIGURATION DESCRIPTION LARC CFT 118 (NA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .C00 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SD.FT.
 LREF 474.8080 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. XC
 YMRP .0008 IN. YC
 ZMRP 375.0000 IN. ZO
 SCALE .0108

RCS JET AMPLIFICATION FACTOR - YAW, NCM)

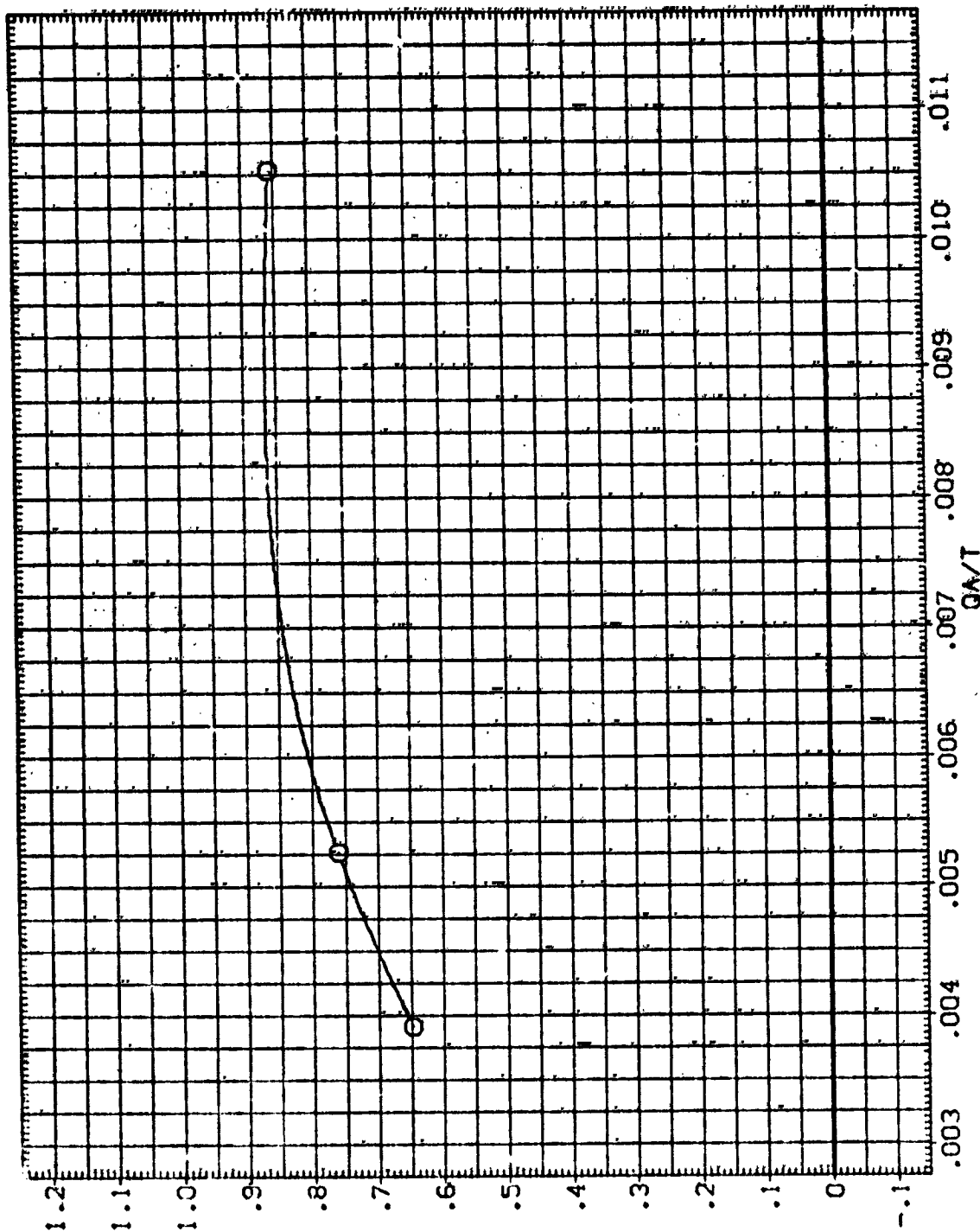


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(C) ALPHA = -4.00

RCS JET AMPLIFICATION FACTOR - YAW, NORM

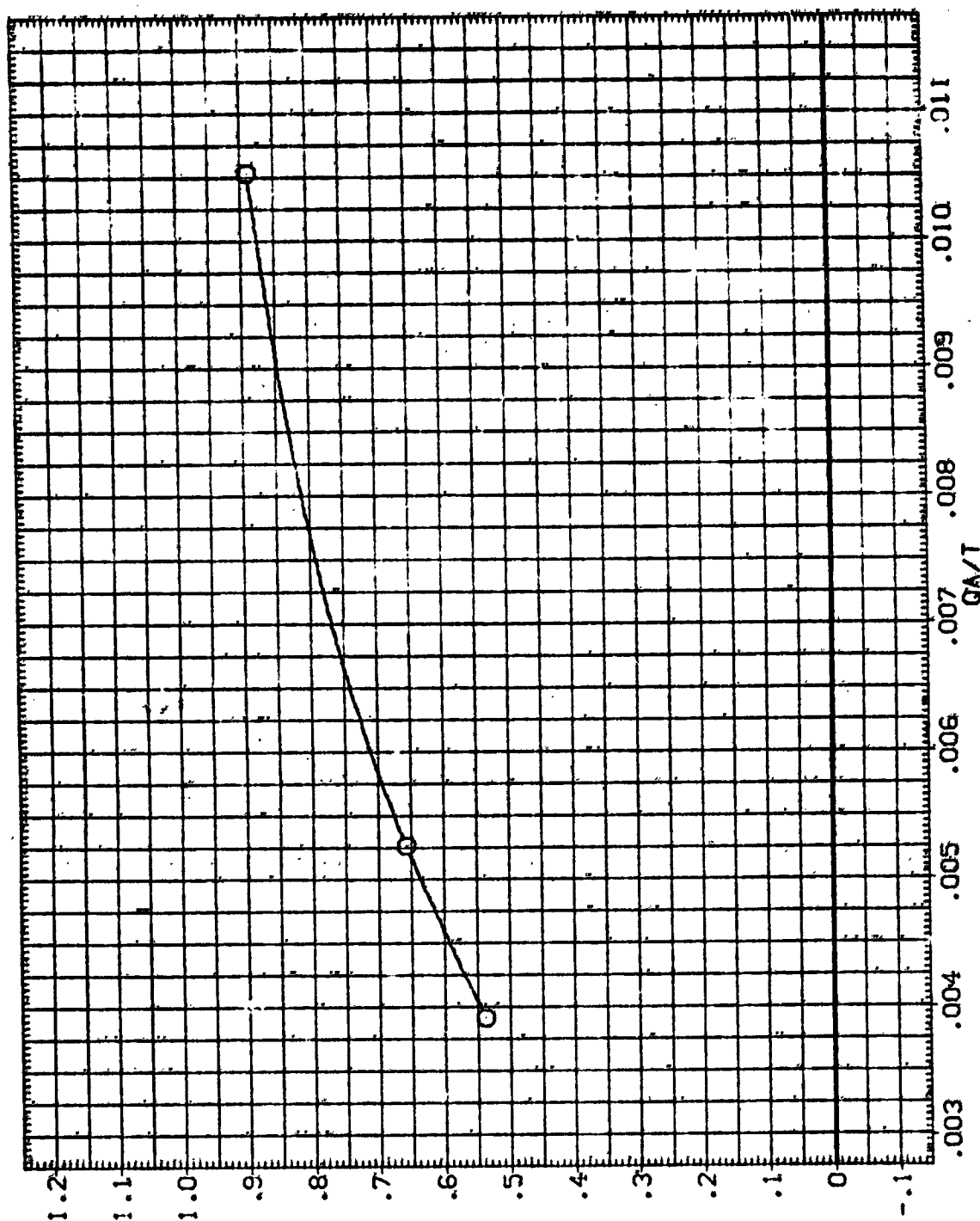


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(D) ALPHA = -2.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BD FLAP	BETA	REFERENCE INFORMATION
(SJA011) O 01N84	LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	SRF 2650.0000 50. FT.
						LRP 424.8000 INCHES
						BRP 936.6000 IN. X0
						MRP 1076.7000 IN. X0
						YMRP .0000 IN. Y0
						ZMRP 375.0000 IN. Z0
						SCALE .0100

DATA SET SYMBOL ○ Q1N84 CONFIGURATION DESCRIPTION LARC CFMT 118 (NA-22)

ELEVON+ .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0070 SQ. FT.
 LREF 474.8000 INCHES
 BREF 536.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - YAW, NCM)

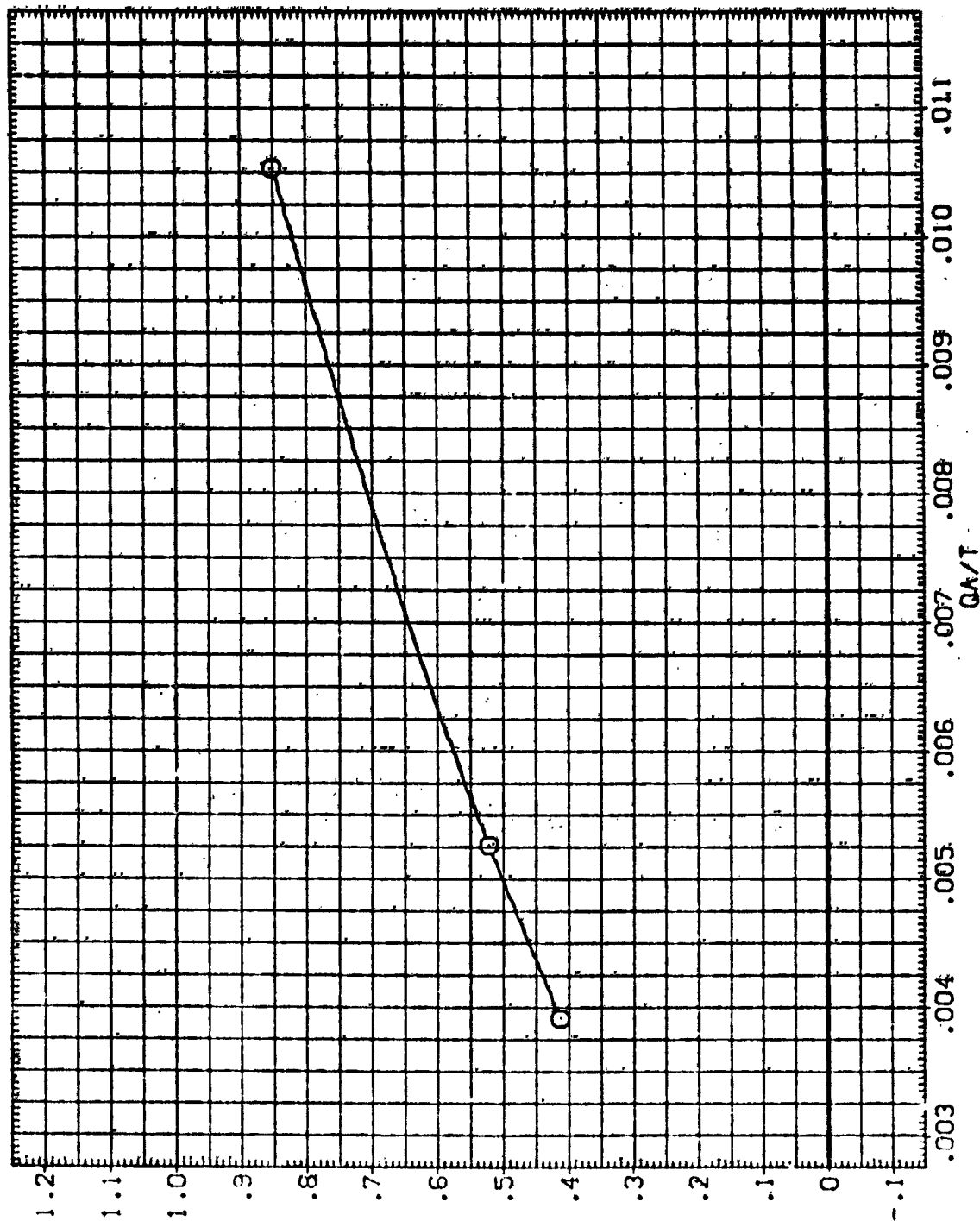


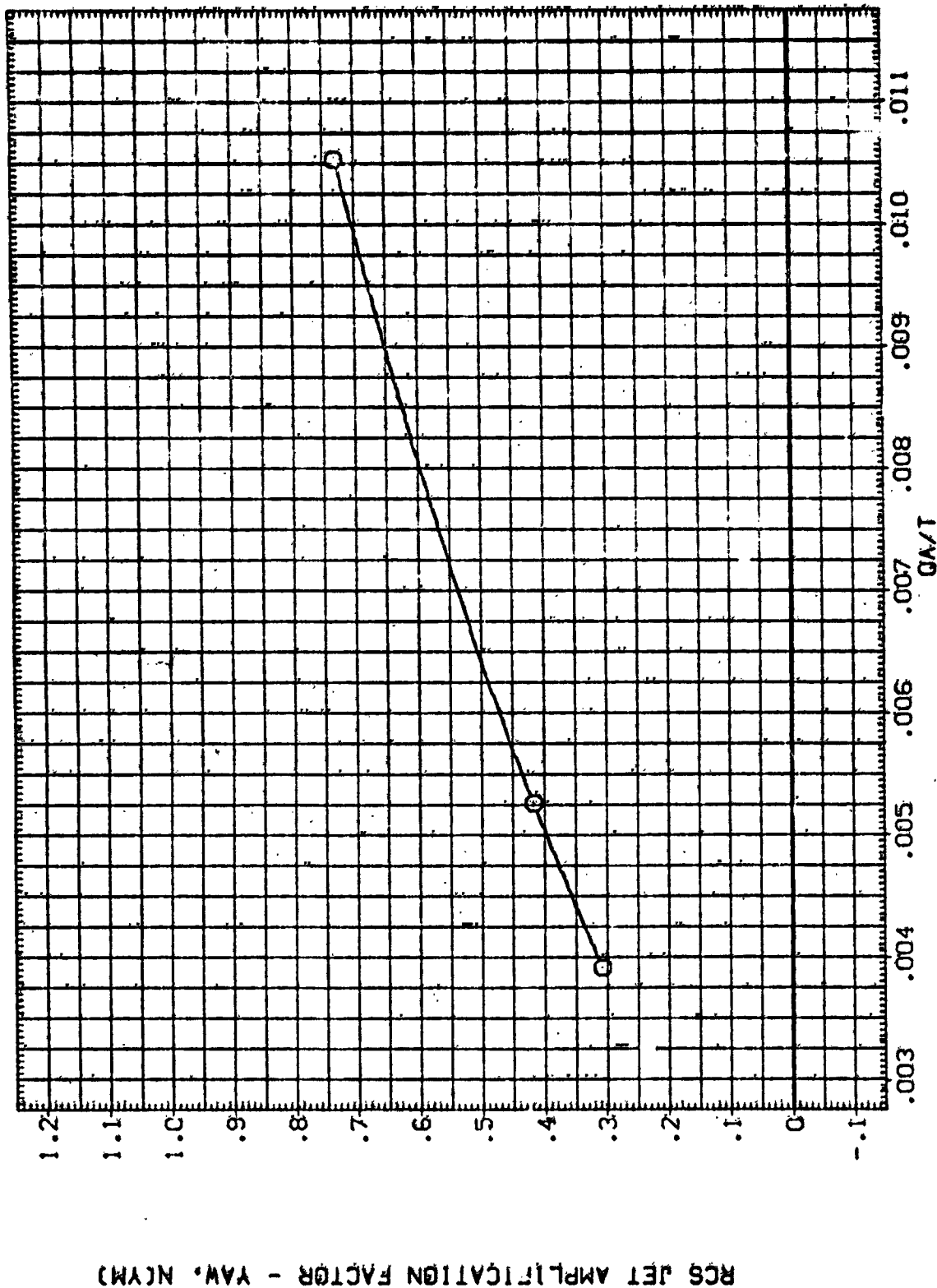
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(E)ALPHA = .00

DATA SET SYMBOL: 0 QH84
 CONFIGURATION: DESCRIPTION: LARC CENT 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BDFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 906.6800 INCHES
 XMRP: 1076.7000 IN. X
 YMRP: .0000 IN. Y
 ZMRP: 375.0000 IN. Z
 SCALE: .0100



RCS JET AMPLIFICATION FACTOR - YAW, NCM)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(F)ALPHA = 2.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SUAC11) O GUN84 LARG CFM84 118 (MA-22)

ELEVON: .000 NO JET BOFLAP .000 BETA .000

REFERENCE INFORMATION
SREF 2690.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XPRP 1096.7000 IN. XG
YPRP .0000 IN. YG
ZPRP 375.0000 IN. ZG
SCALE .0100

RCS JET AMPLIFICATION FACTOR - YAW, NCM)

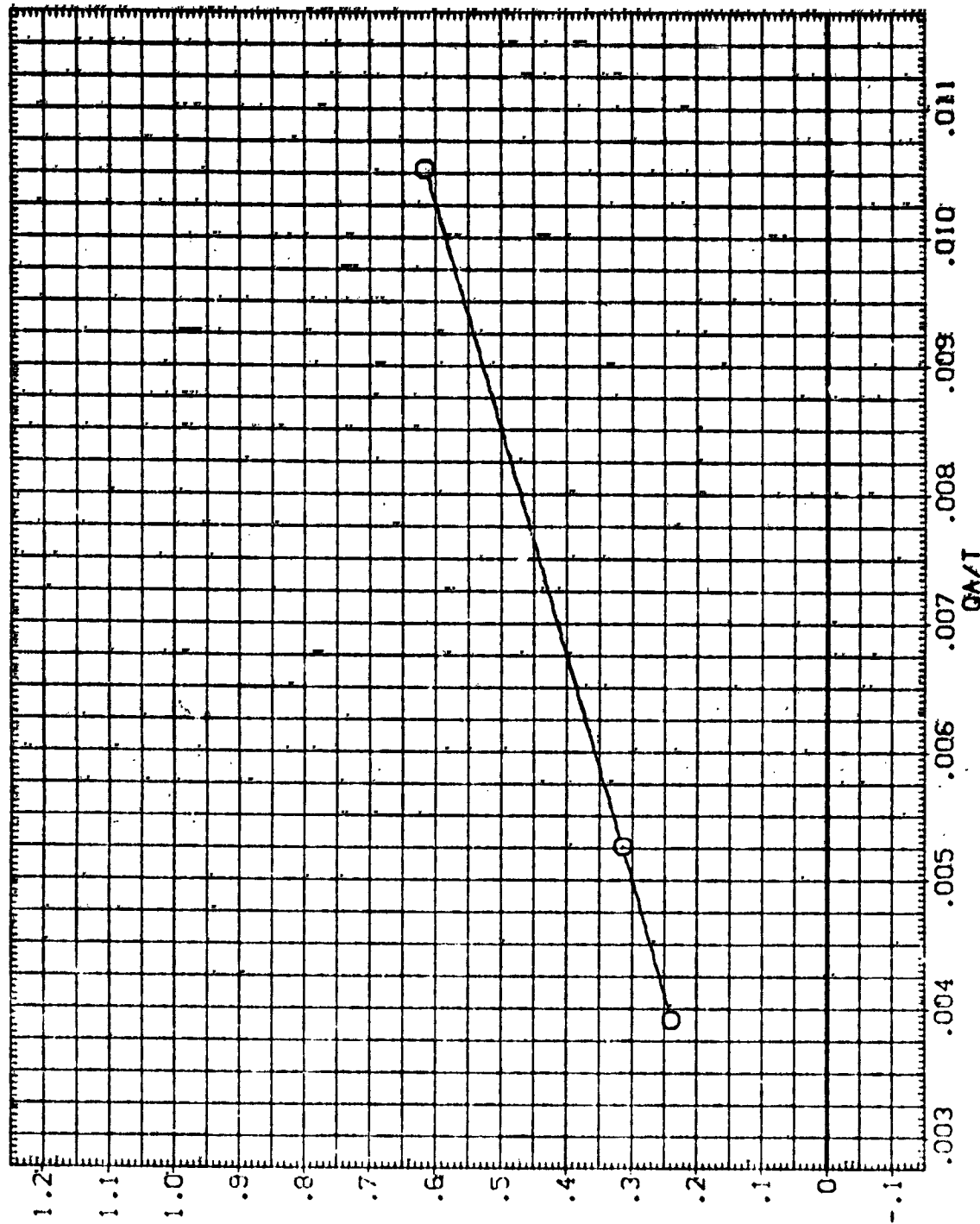


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

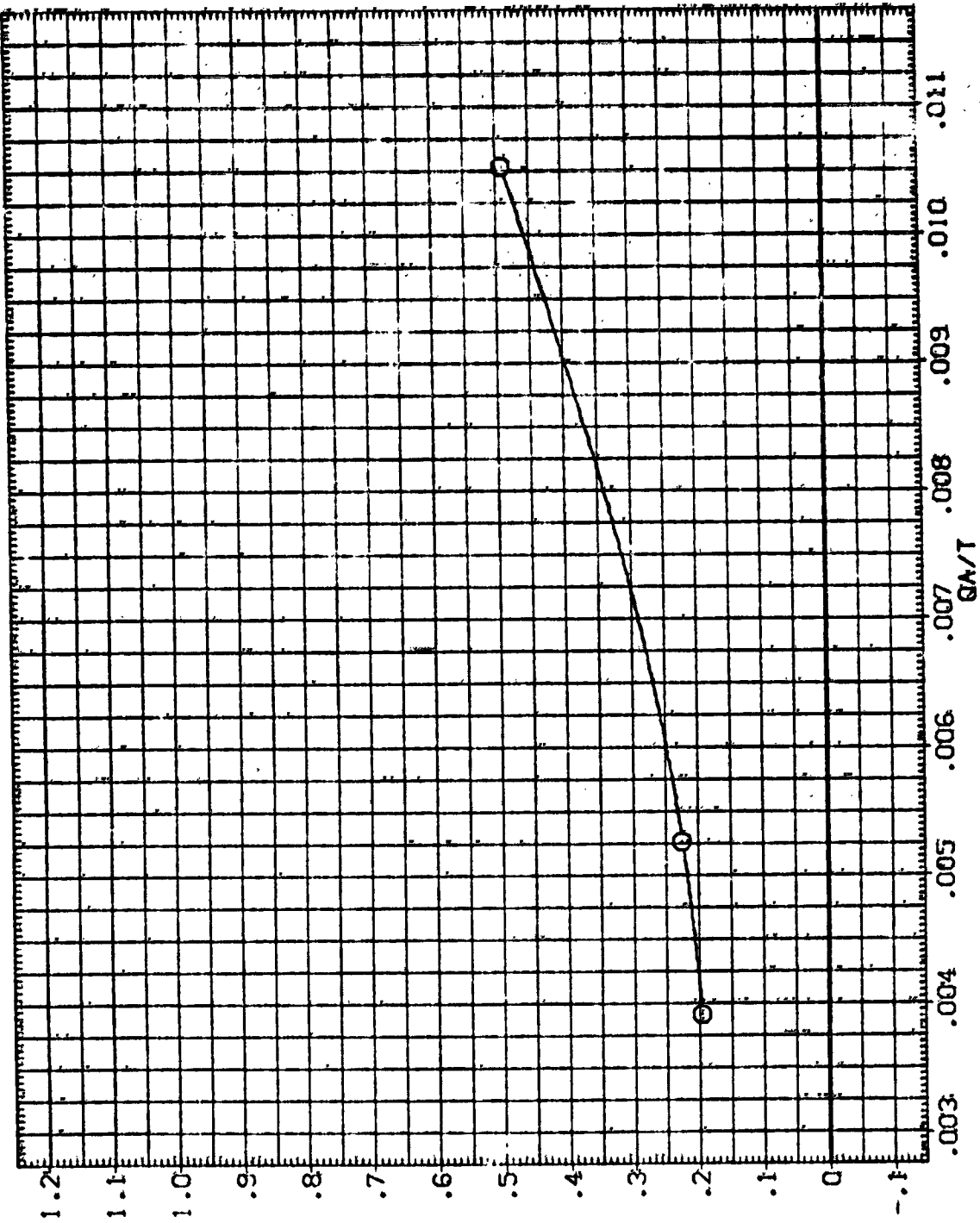
(G)ALPHA = 4.00

DATA SET SYMBOL (SJA011) 0 QJN84

CONFIGURATION DESCRIPTION LARG CHT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BD FLAP .080 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 IN. ES
 BREF 996.6800 IN. ES
 XREF 1076.7000 IN. XG
 YREF .0000 IN. YG
 ZREF 375.0000 IN. ZG
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, NCRM

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(H)ALPHA = 6.00

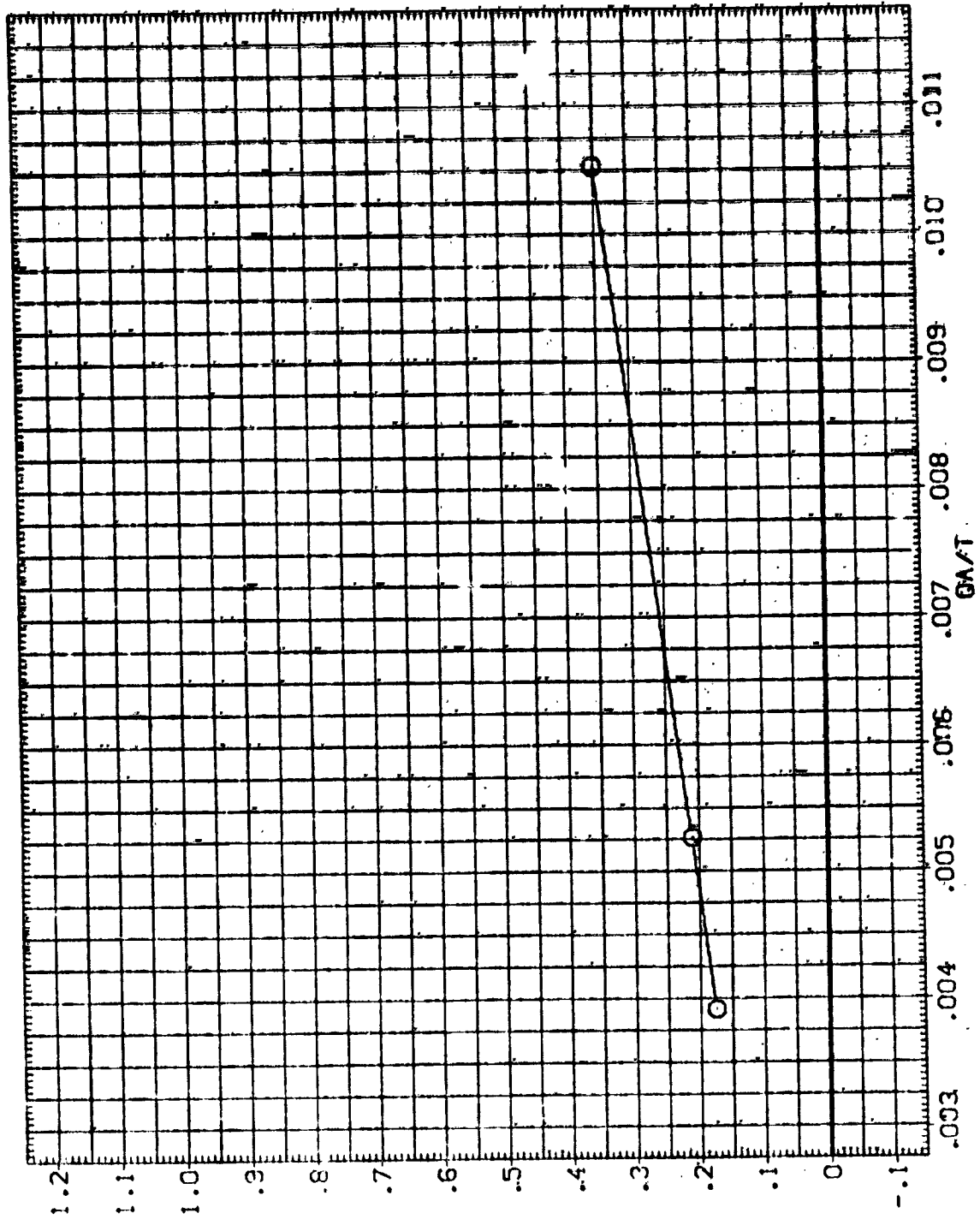
REFERENCE INFORMATION

SREF	2690.0000	SO. FT.
LREF	474.8000	INCHES
BREF	935.6800	INCHES
REF	1076.7000	IN. IN
REF	375.0000	IN. IN
SCALE	.0100	

ELEVON NO. JET BOFLAP BETA

.000	2.000	.000	.000
------	-------	------	------

DATA SET SYMBOL (SJA011) O CIN84 LARC CFMT 118 (MA-22)



RCS JET AMPLIFICATION FACTOR - YAW, NCM

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(1) ALPHA = 8.00

DATA SET SYMBOL (S7011) Q QIN84 CONFIGURATION DESCRIPTION LARC CFHT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2650.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 976.6800 INCHES
 YMRP 1076.7000 IN. X0
 ZMRP .0000 IN. Y0
 SCALE 375.0000 IN. Z0

RCS JET AMPLIFICATION FACTOR - YAW, NCM)

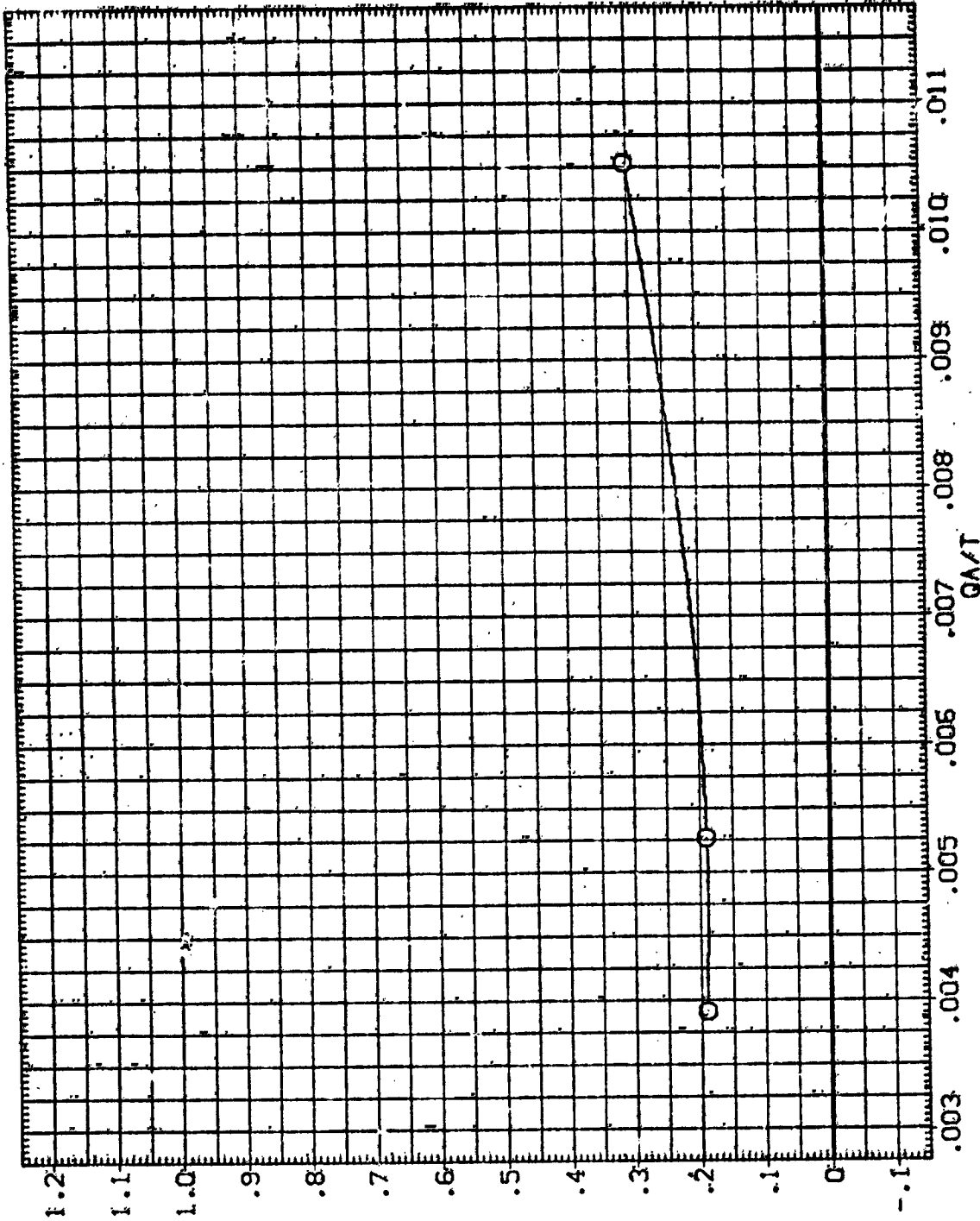


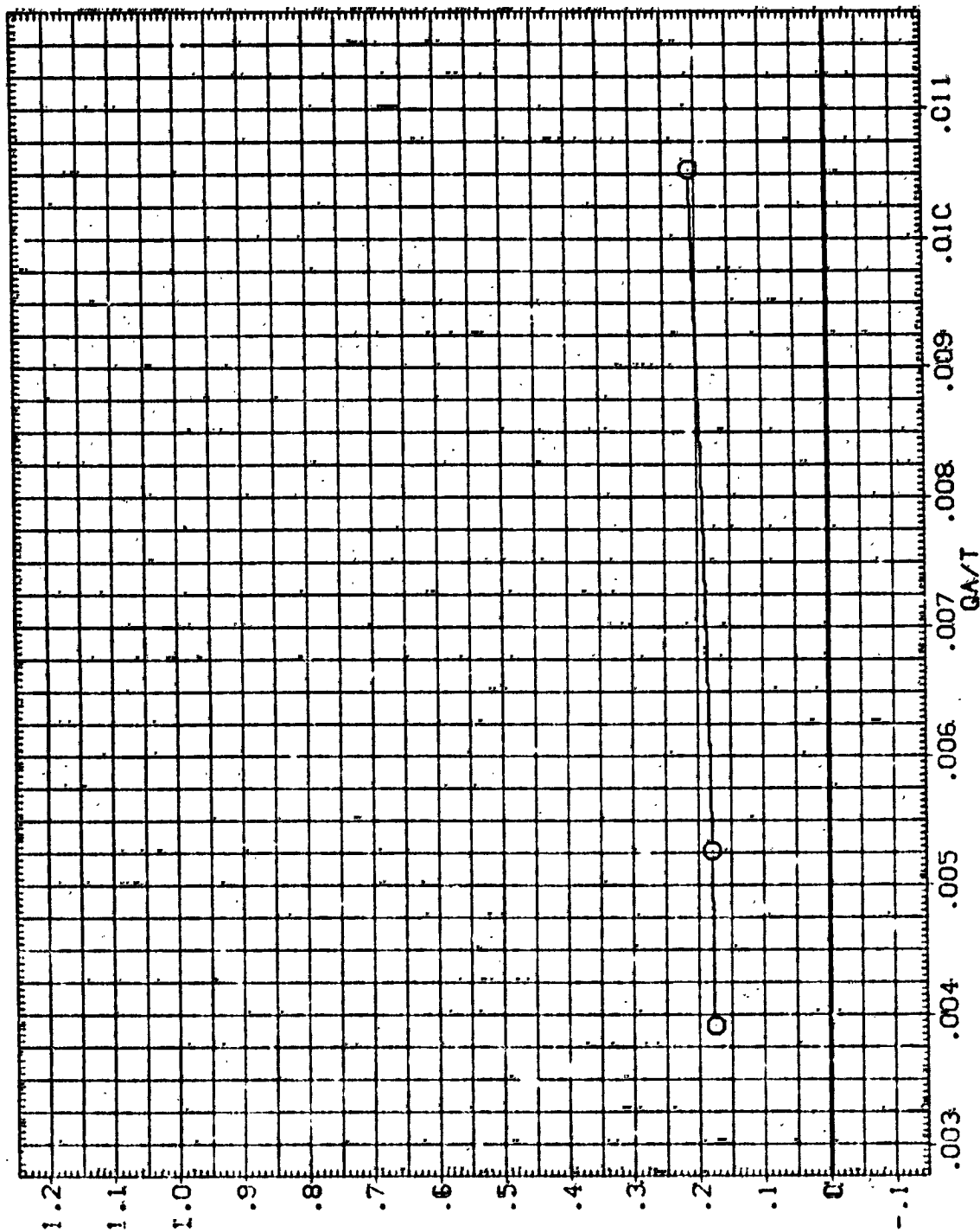
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(J)ALPHA = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SCA011) 0 01N84 LARC CFHT 118 (NA-22)

ELEVON NO. JET ROFLAP BETA
.000 2.000 .000 .000

REFERENCE INFORMATION
SREF 2690.0000 SQ. FT.
LREF 474.0000 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, NCM

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(K)ALPHA = 15.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(S/A011) 0 01N84 LARC CFHT 18 (MA-22)

ELEVON NO. JET 80FLAP BETA
.000 2.000 .000

REFERENCE INFORMATION
SREF 2690.0000 50.07
LREF 474.8000 INCHES
BREF 936.6500 INCHES
XMRP 1076.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100

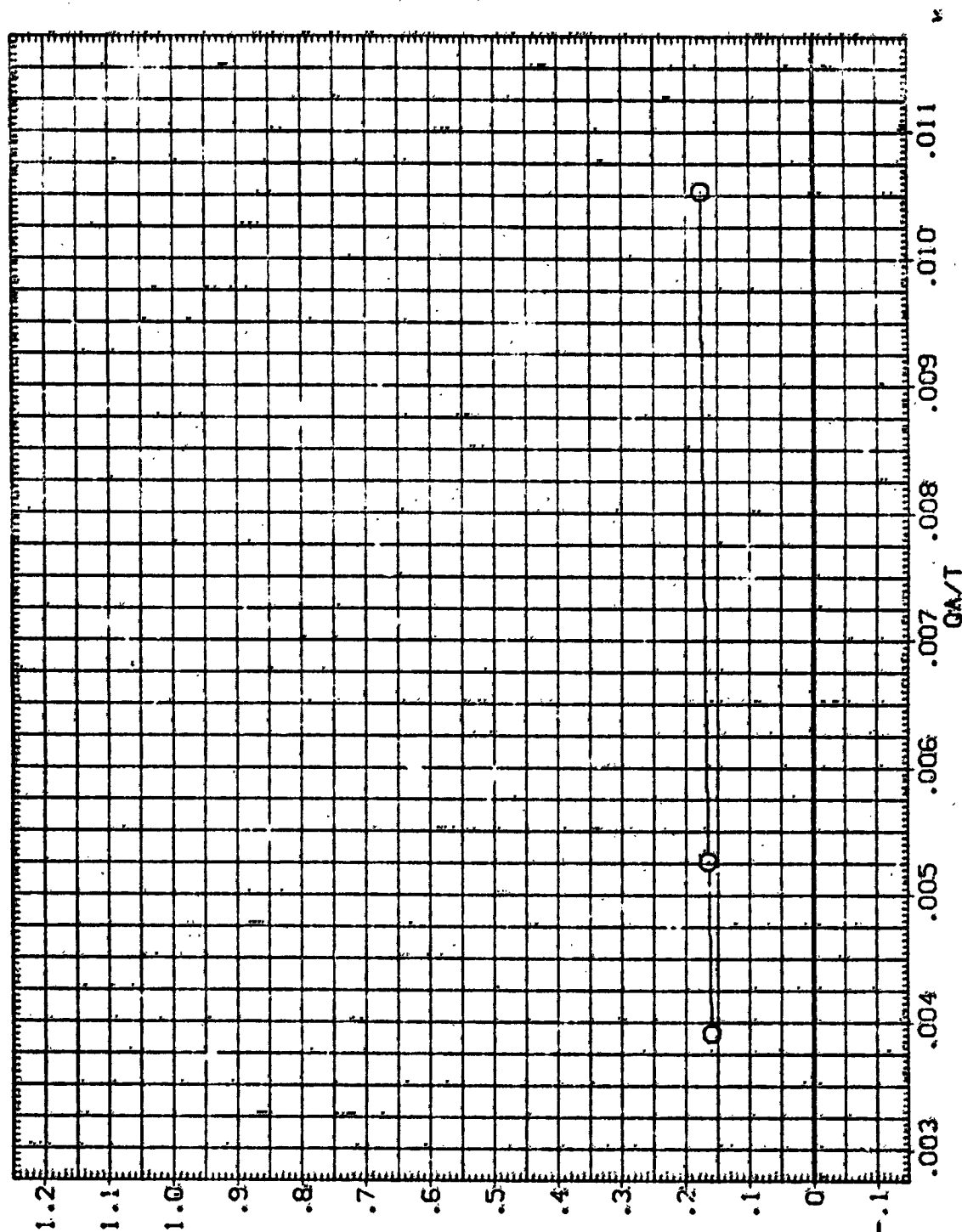


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(L)ALPHA = 20.00

DATA SET SYMBOL: 03N84
 CONFIGURATION DESCRIPTION: LARE CFMT 118 (MA-22)

ELEVON: .000
 NC-JET: 2.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SQ. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

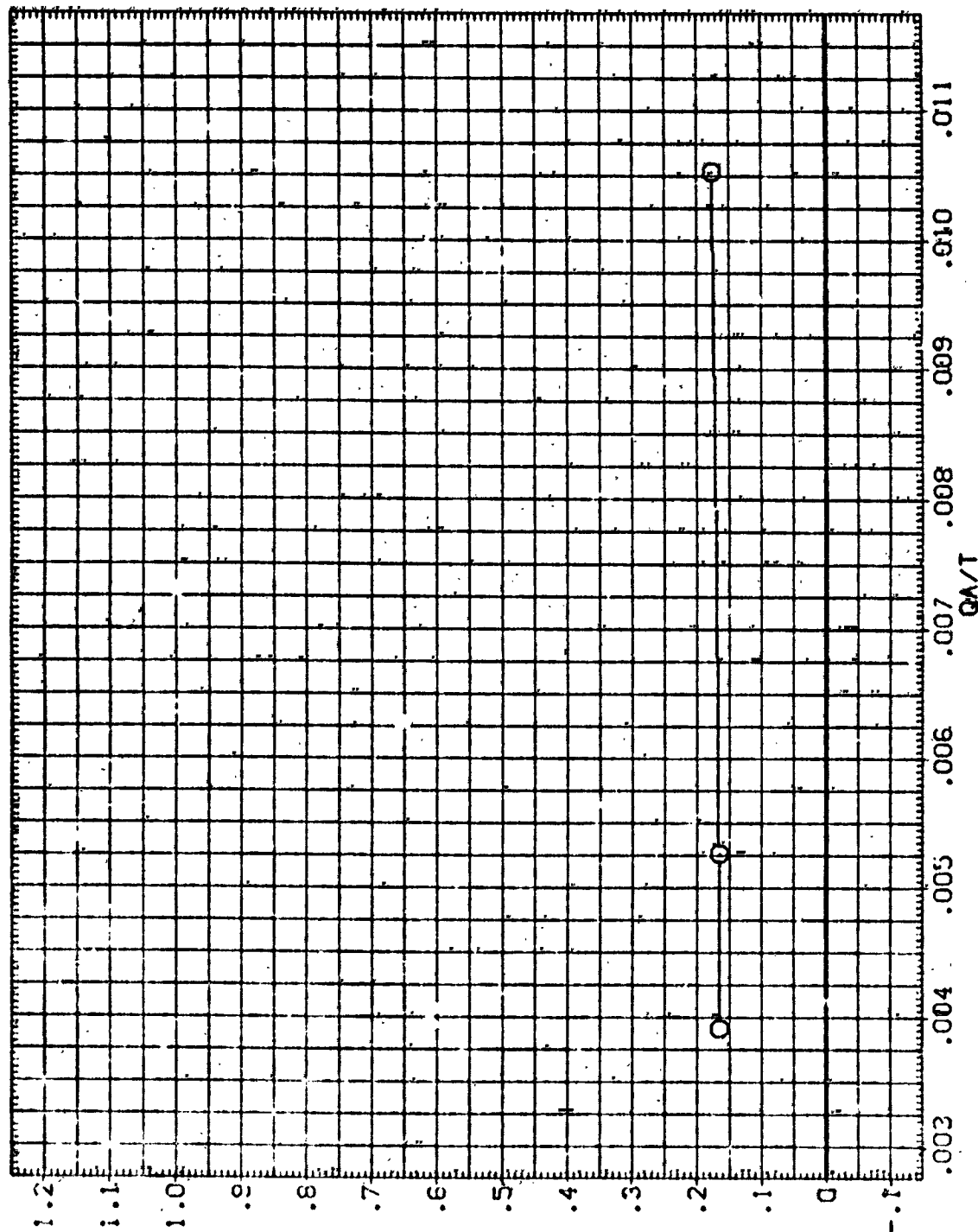


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(M)ALPHA = 25.00

DATA SET SYMBOL: (SJA011) ☐ GUN84

CONFIGURATION DESCRIPTION: LARC CFHT 118 CMA-223

ELEVATION: .000 NO. JET: 2.000 BOFLAP: .000 BEY: .000

REFERENCE INCHES: 2630.0000
 SREF: 424.8000
 LREF: 936.5800
 BREF: 1076.7000
 XMRP: 375.8000
 YMRP: .0108
 SCALE: .0108

RCS JET AMPLIFICATION FACTOR - YAW, N(YM)

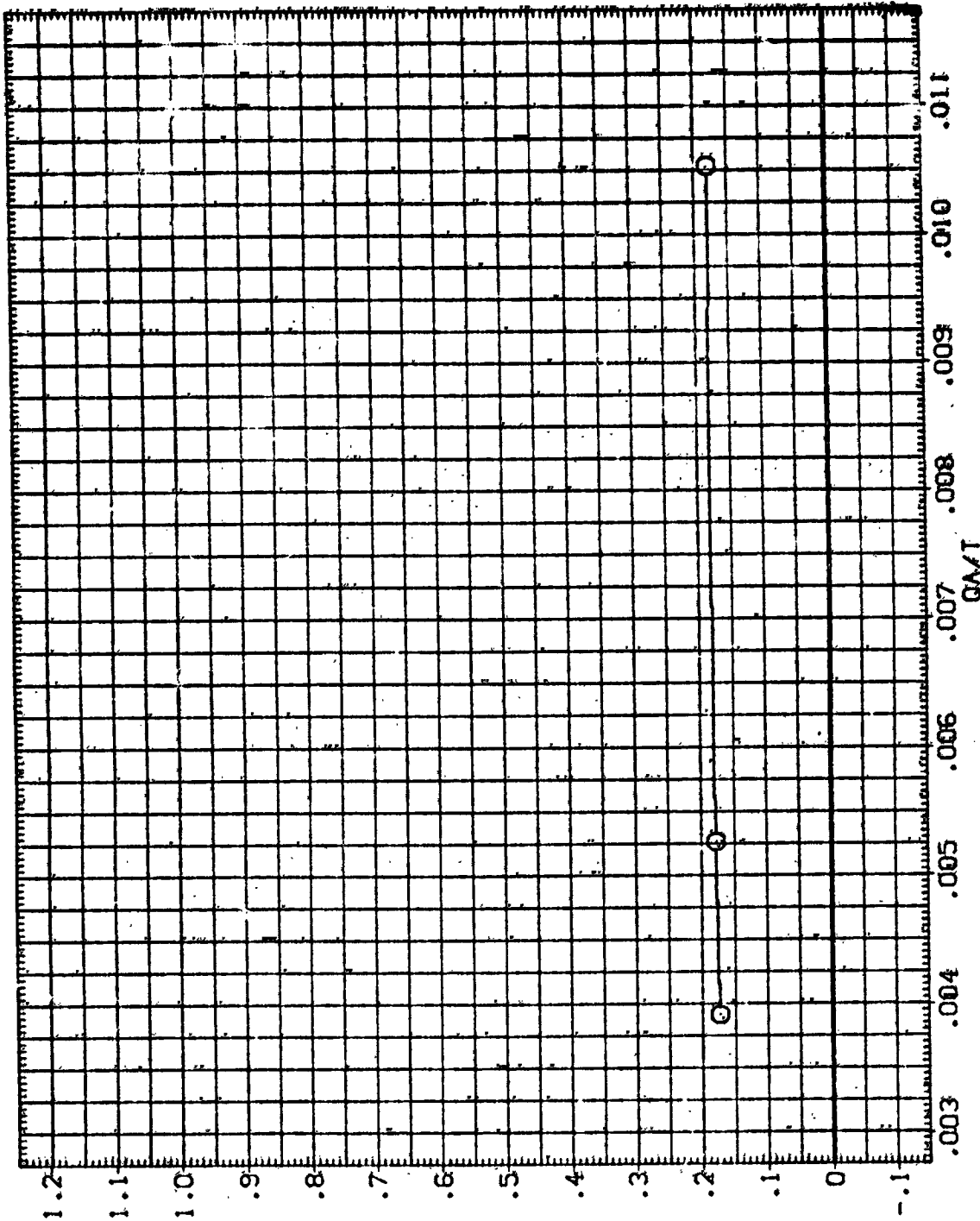


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(N)ALPHA = 30.00

DATA SET SYMBOL: (SU011) ☐ QNBS4 CONFIGURATION DESCRIPTION: LARC CFHT 118 (MA-22)

ELEVON: .000 NO. JET: 2.000 BOFLAP: .000 BETA: .000

REFERENCE INFORMATION:

	SRCP	LREF	BREF	XMRP	YMRP	ZMRP	SCALE	SO. FT.	INCHES	IN.	YQ	ZQ
	2690.0000	474.8000	936.6800	1076.7000	.0000	375.0000	.0100					

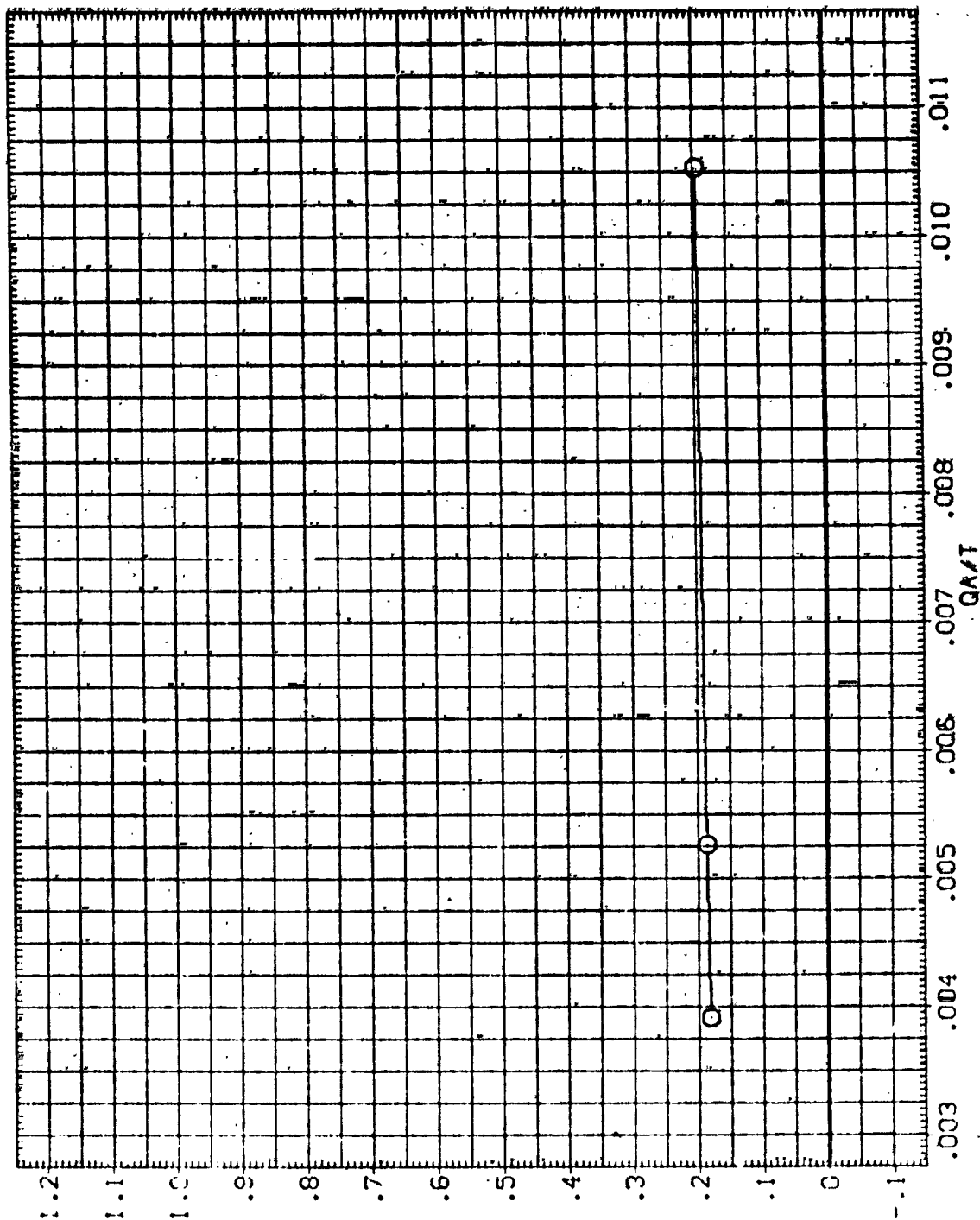


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(O) ALPHA = 35.00

DATA SBT SYMBOL (SIA011) 01N84 LARC CFMT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BDFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.2000 IN. X
 YMRP .0000 IN. Y
 ZMRP 375.0000 IN. Z
 SCALE .0180

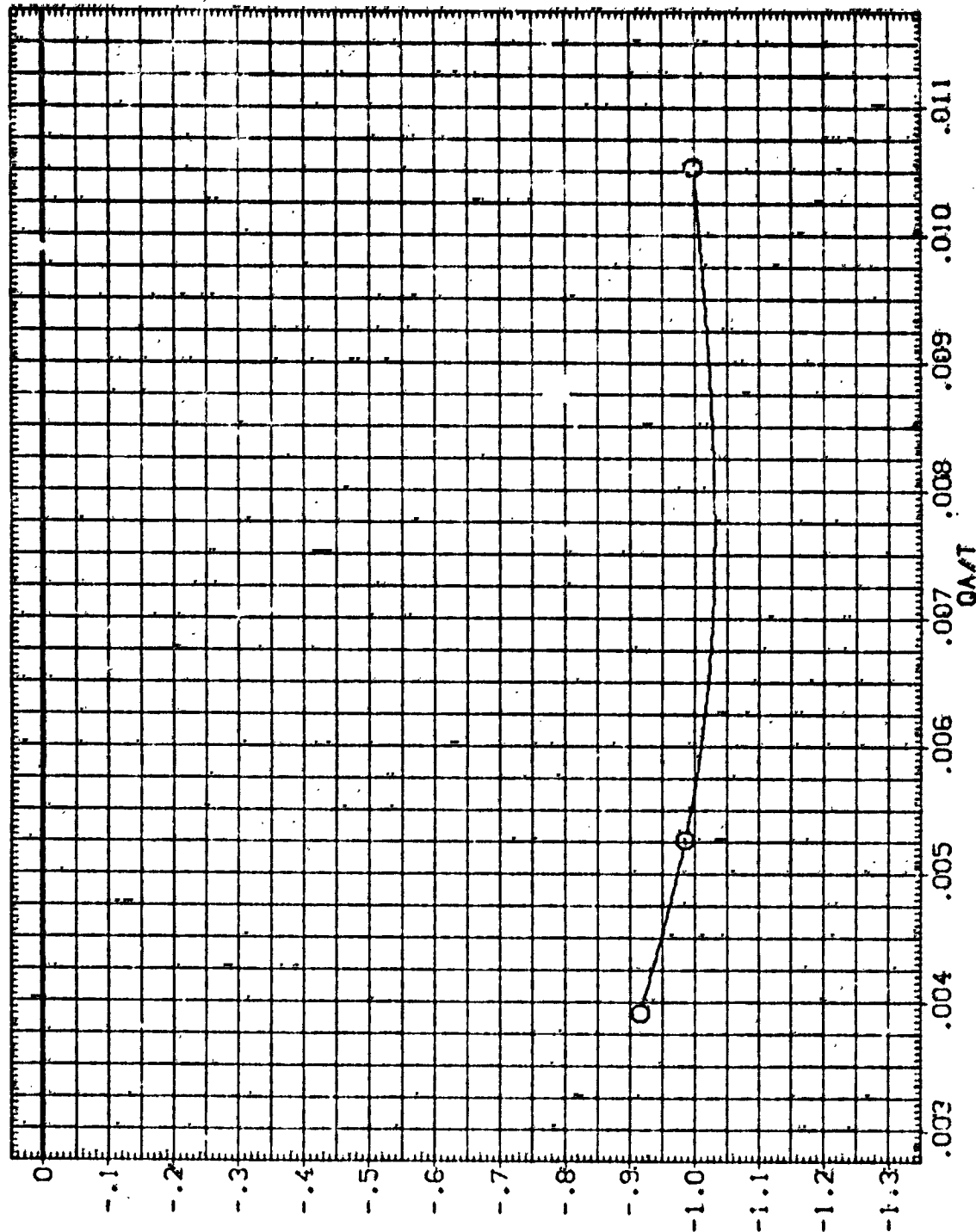


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(A) ALPHA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA011) O	CIN54 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	SREF 2698.0000 SQ.FT.
						LREF 474.8800 INCHES
						BREF 936.6800 INCHES
						YMRP 1076.7000 IN. YB
						ZMRP 375.0000 IN. ZB
						SCALE .0100

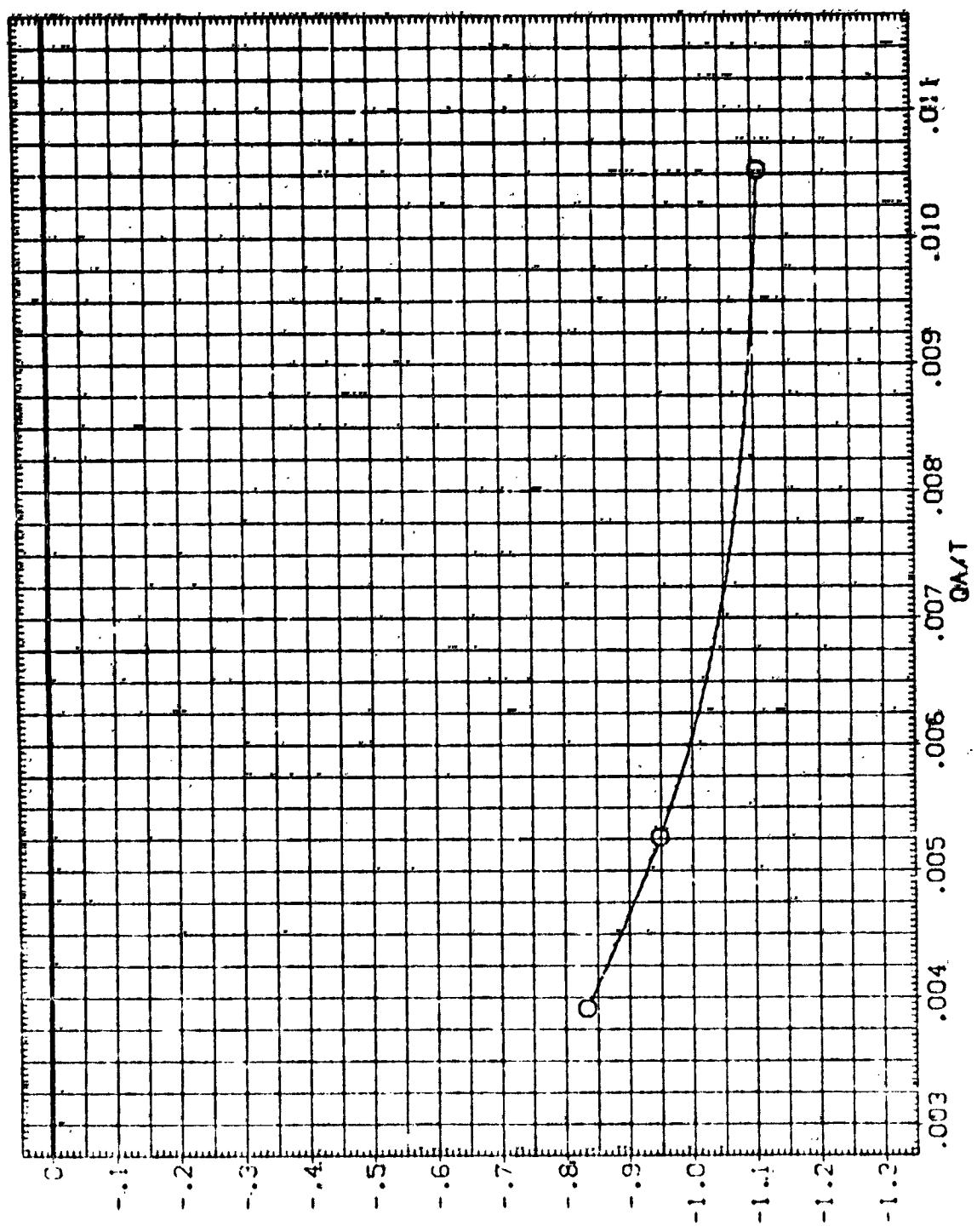


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(B) ALPHA = -6.00

DATA SET SYMBOL (SJA011) ☐ QIN84

CONFIGURATION DESCRIPTION

LARC CFHT 118 (MA-22)

ELEVON .000

NO. JET 2.000

BOFLAP .000

BETA .000

REFERENCE INFORMATION

SREF 2690.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XPRP 1076.7000 IN. X0
YPRP 375.0000 IN. Y0
ZPRP 375.0000 IN. Z0
SCALE .0100

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

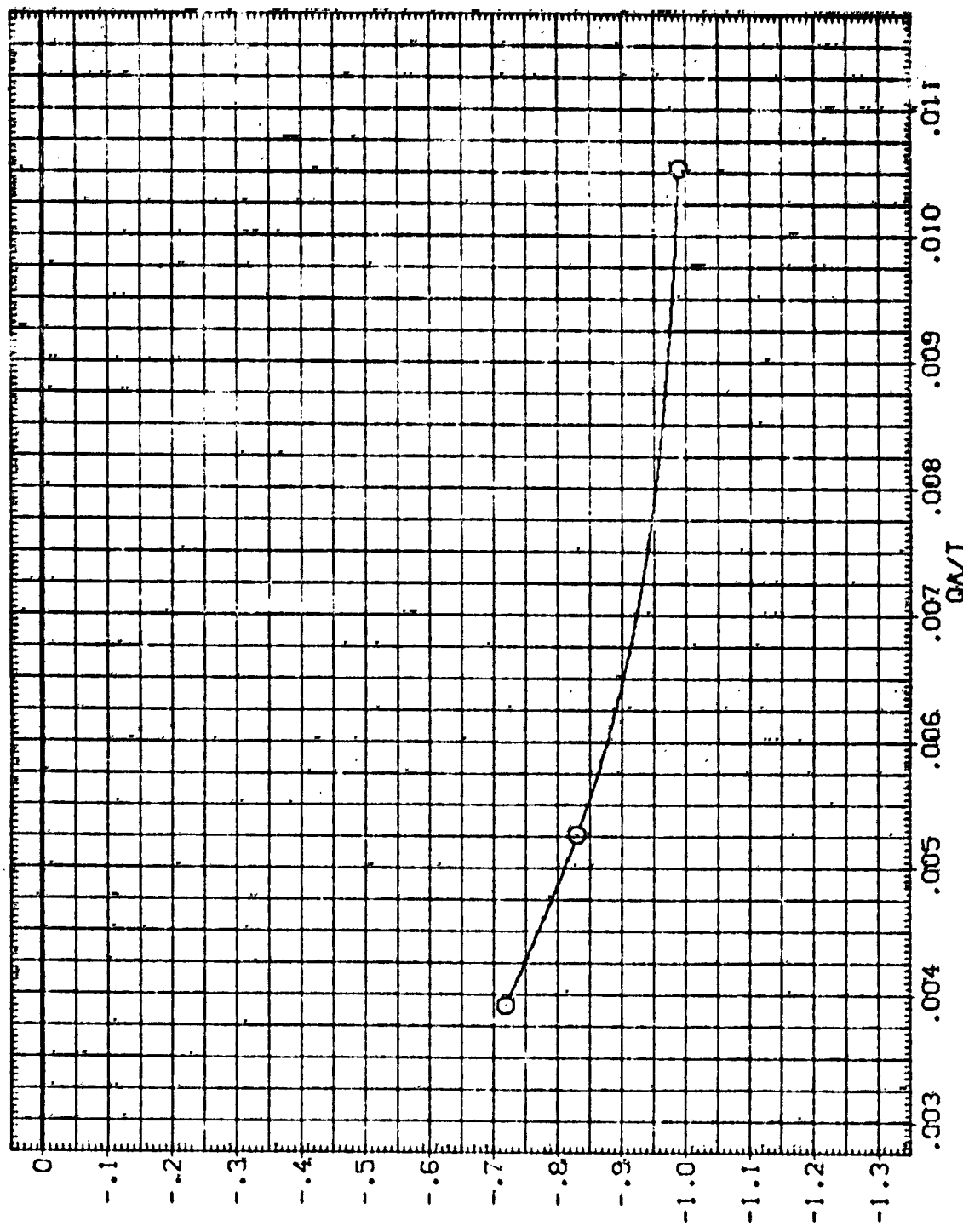


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(C)ALPHA = -4.00

DATA SET SYMBOL: 31N34 CONFIGURATION DESCRIPTION: LARC CFT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA

REFERENCE INFORMATION:
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XHSP 1075.2000 IN. X0
 YHSP .0000 IN. Y0
 ZHSP 375.0000 IN. Z0
 SCALE .0100

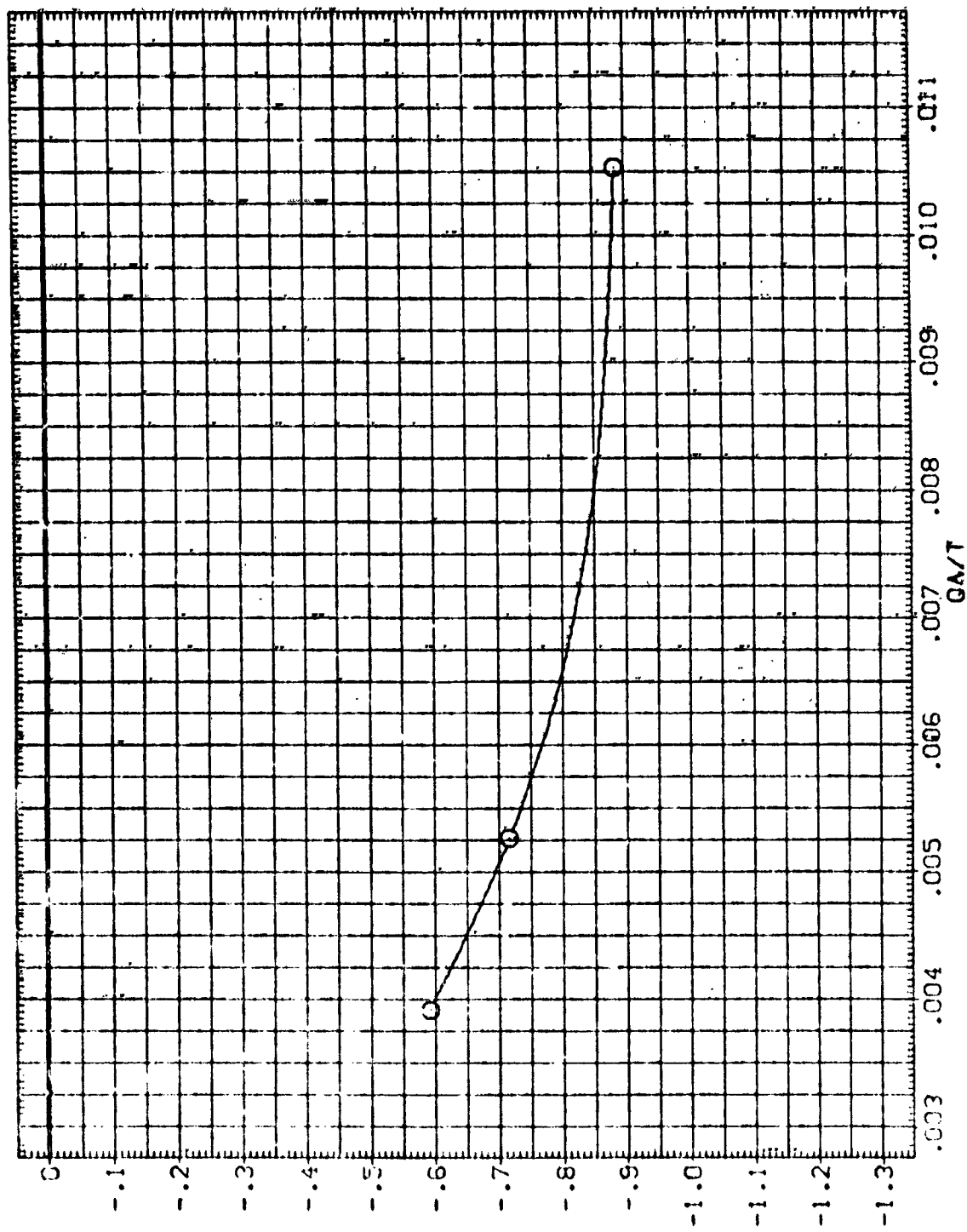


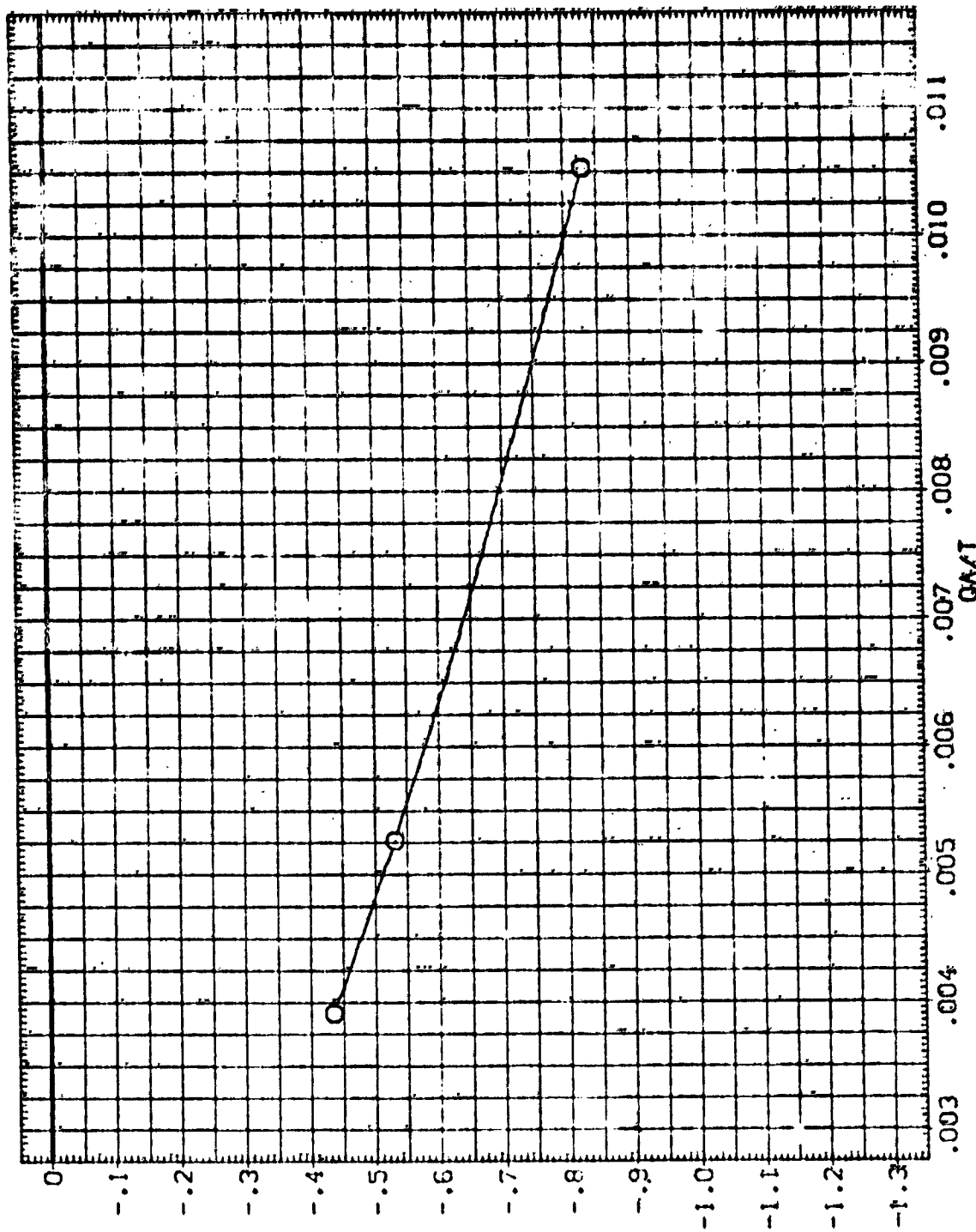
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(C) ALPHA = -2.00

DATA SET SYMBOL: C1M84
 (S1M11) 0 C1M84 LARC CFHT 118 (MA-22)

ELEVON .000 NO. JET 2.000 B8FLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2630 G.20 SOL. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XREF 1076.7500 IN. PD
 YREF .0000 IN. VD
 ZREF 375.0000 IN. ZD
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

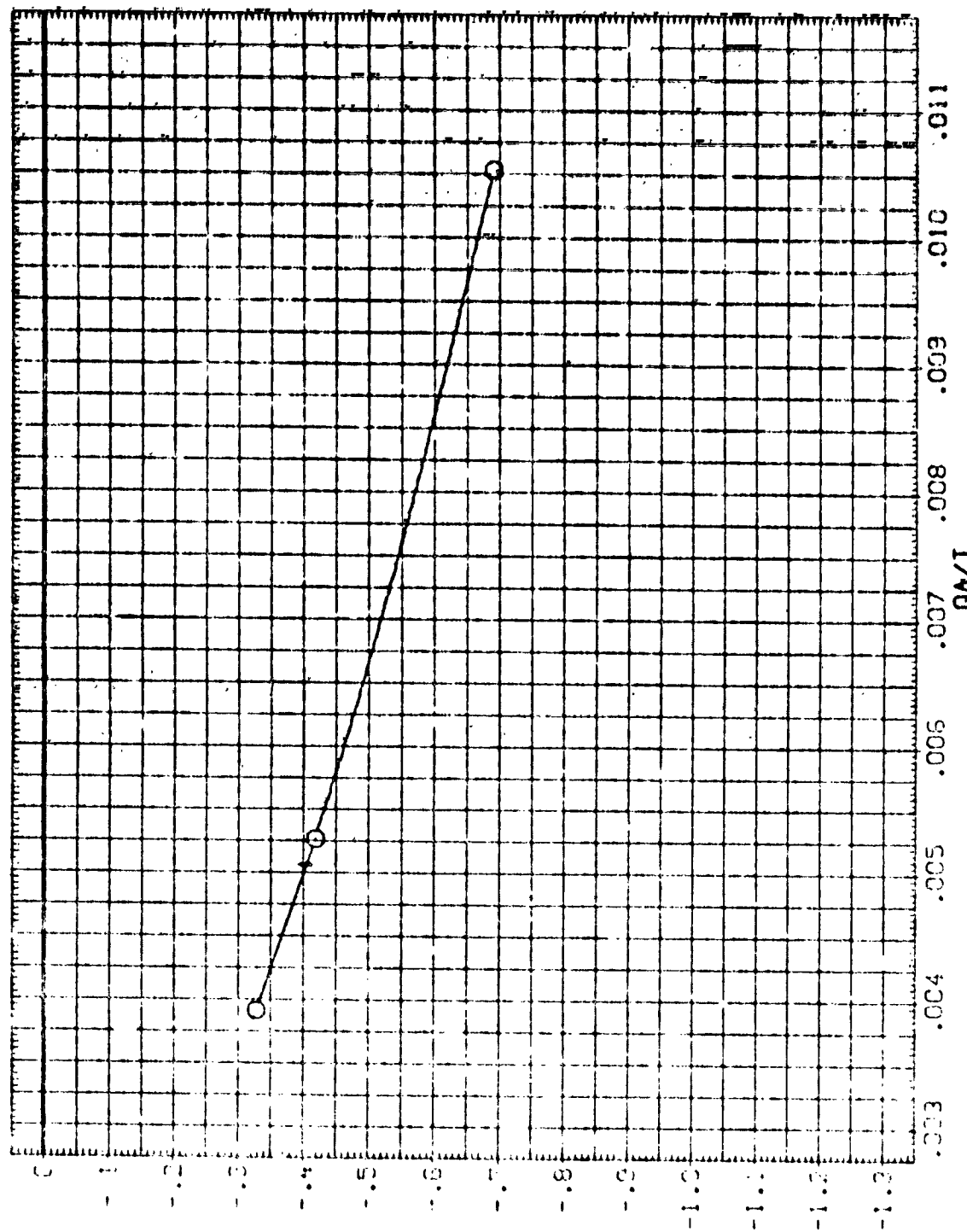
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(E) ALPHA = .00

DATA SET SYMBOL: 02164
 CONFIGURATION DESCRIPTION: LARC CFMT 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BOLFAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SEEF: 2690.0000 SO. FT.
 LREF: 474.8500 INCHES
 BREF: 936.6800 INCHES
 VREF: 1076.7000 IN. X
 ZREF: .0000 IN. X
 SCALE: 375.0000 IN. X
 .0000



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N/SEF

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(α) ALPHA = 2.00

DATA SET SYMBOL (SJA011) ○ Q1N84

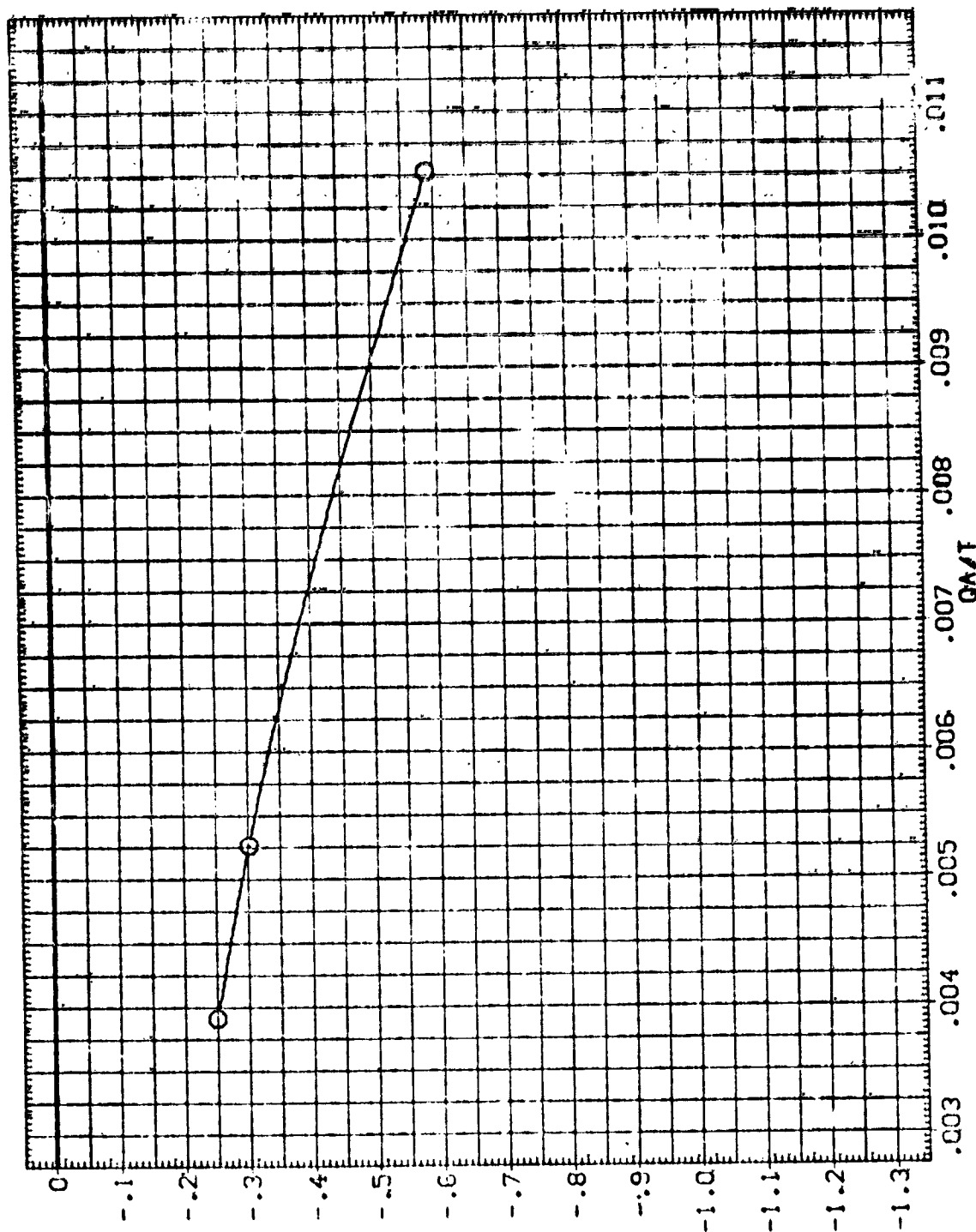
ELEVON .008

REFERENCE INFORMATION
 SREF 2690.0000 SD.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XPRP 1096.2800 IN. X0
 YPRP .0900 IN. Y0
 ZPRP 395.0000 IN. Z0
 SCALE .0008

NO. JET 2.000

BCLAP .000

BETA .000



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NSF)

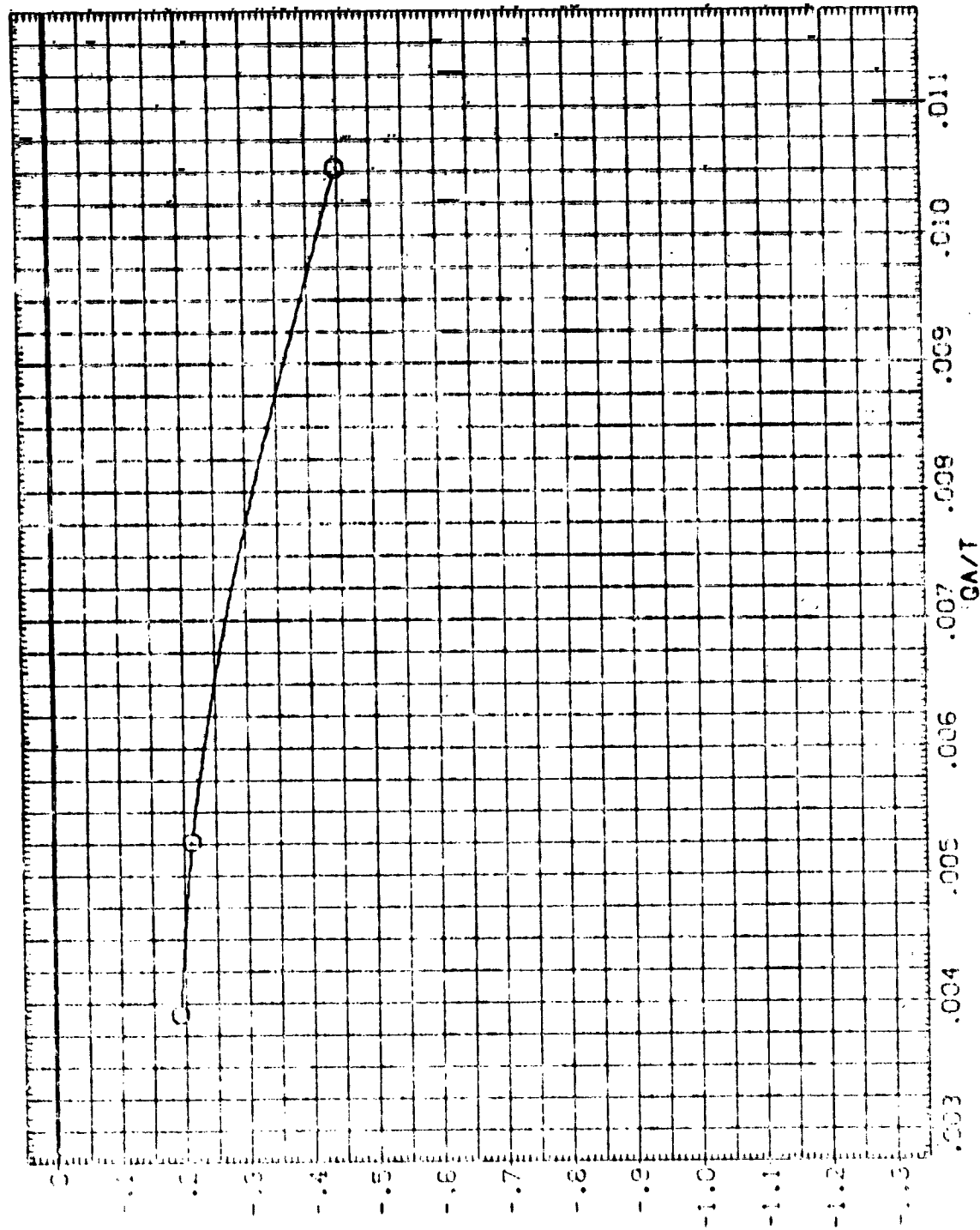
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(G)ALPHA = 4.00

DATA SET SYMBOL: 01334
 CONFIGURATION DESCRIPTION: LARC CFMT 119 (RA-22)

ELEVON: .000
 NO. JET: 2.000
 30° FLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2590.0000 SQ. FT.
 XREF: 474.8000 INCHES
 YREF: 936.6800 INCHES
 XMRP: 1096.7000 IN. NO.
 YMRP: .0000 IN. NO.
 ZMRP: 325.0000 IN. NO.
 SCALE: .0100



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N/SF)

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(α) ALPHA = 6.00

DATA SET SYMBOL (SJA011) QIN84

CONFIGURATION DESCRIPTION LARC CFMT 118 (MA-22)

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NCSF)

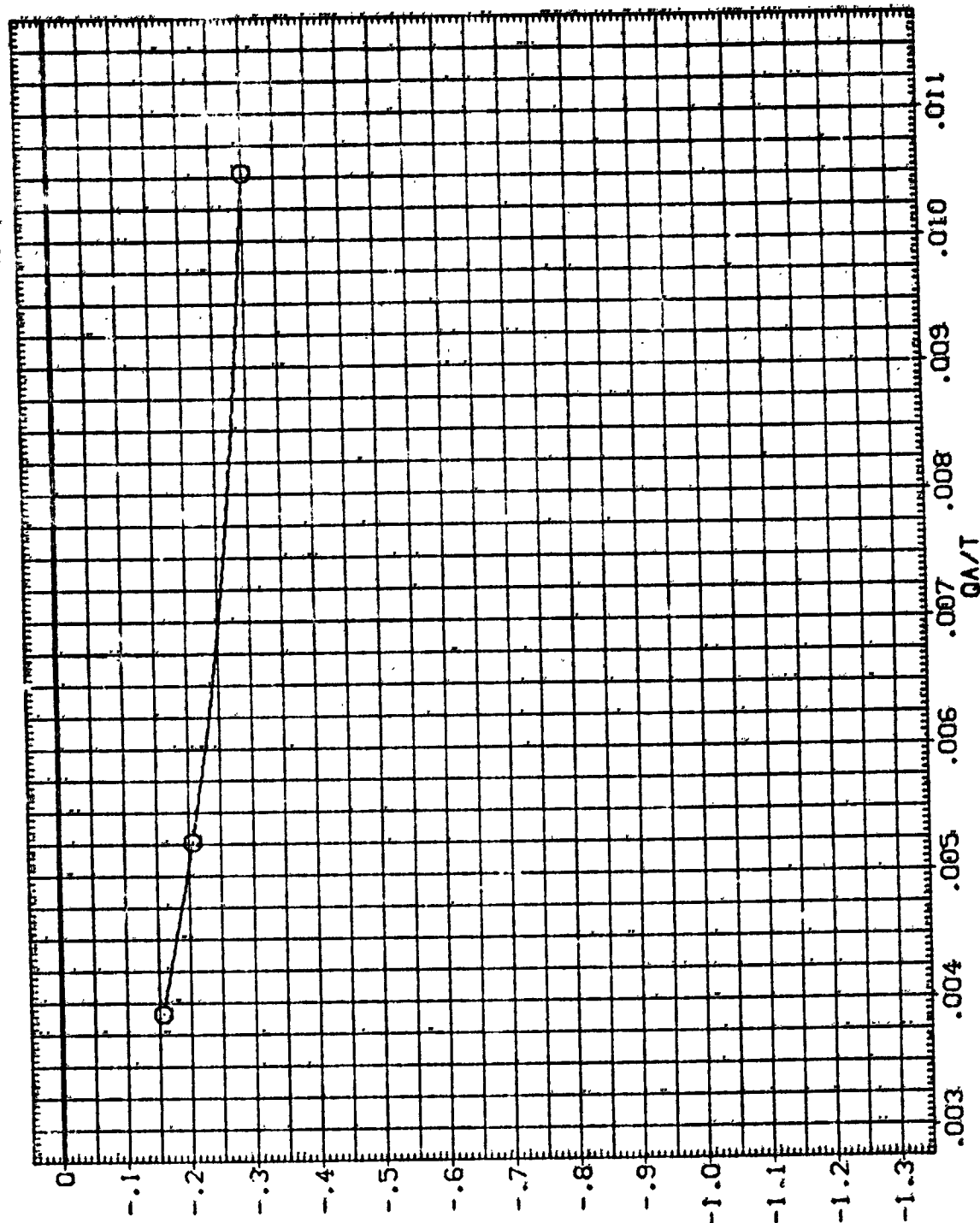


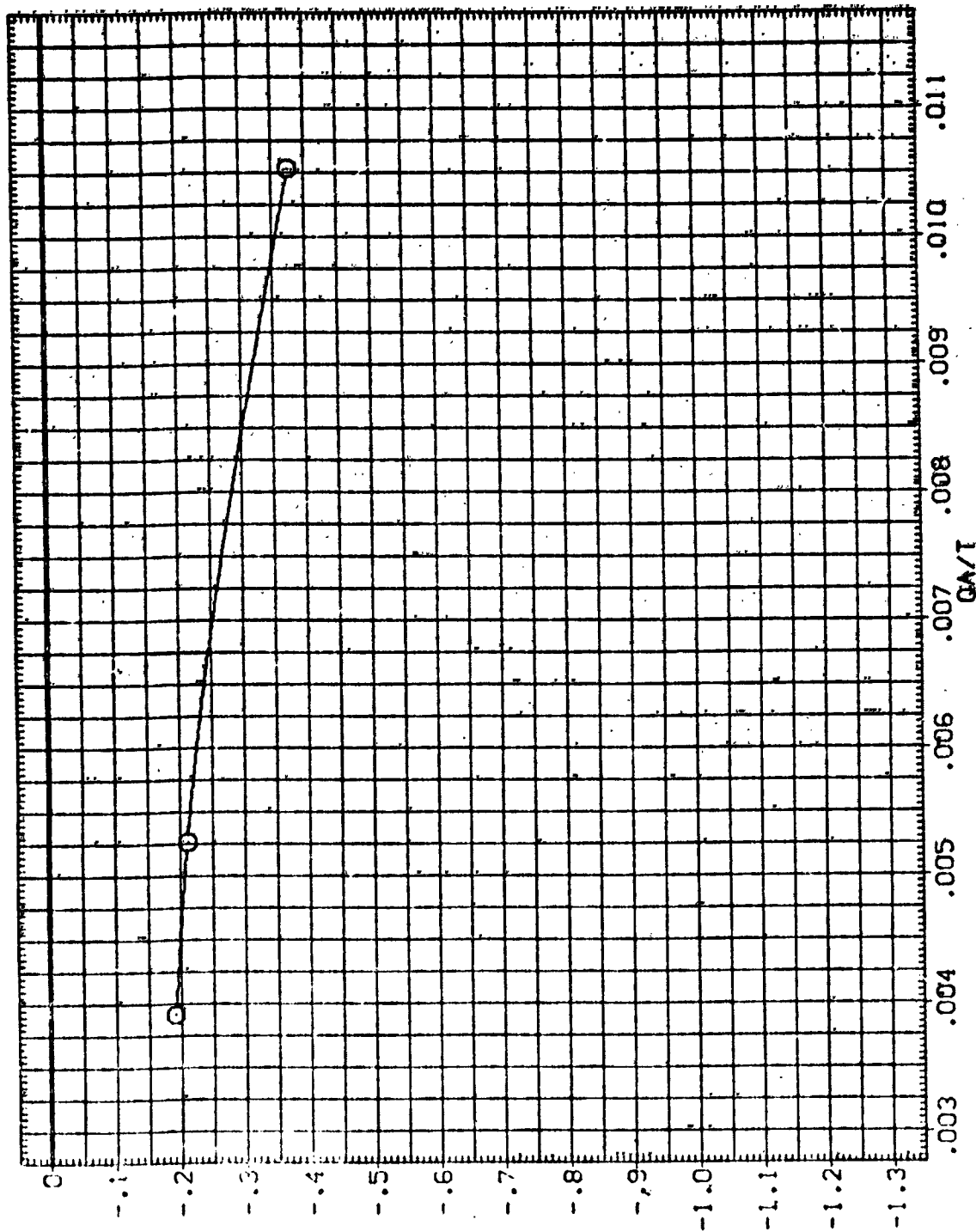
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(1) ALPHA = 8.00

DATA SET SYMBOL: 01N84
 CONFIGURATION DESCRIPTION: LARC C/H 110 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BDFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SPEC: 2690.0000 SQ. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. X
 YMRP: .0000 IN. Y
 ZMRP: 375.8000 IN. Z
 SCALE: .0108



RCS Jet Amplification Factor - Side Force, NCSF

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(JJALPHA = 10.00)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(SJA011) 01N84 LARC CPWF 118 (MA-22)

ELEVON .000 NO JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
SREF 2696.0000 SO. FT
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. NO
YMRP .0000 IN. NO
ZMRP 375.0800 IN. NO
SCALE .0100

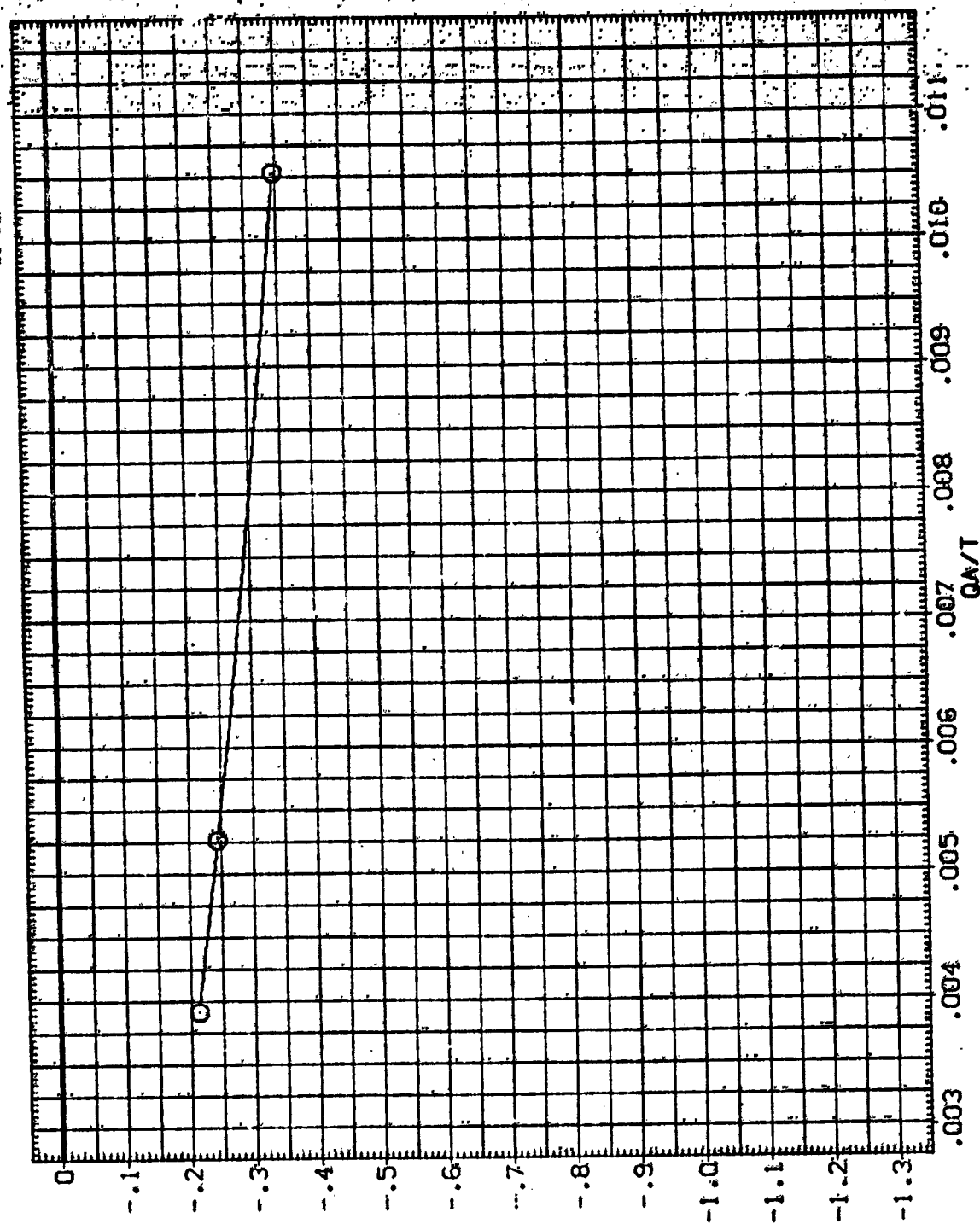


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(K)ALPHA = 15.00

DATA SET SYMBOL (SJA011) ☐ 01N84 CONFIGURATION DESCRIPTION LARC CFMT 118' (NA-223)

ELEVON .000 NO. JET 2.000 BOFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.0000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. NO
 YMRP .0000 IN. NO
 ZMRP 375.0000 IN. NO
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, (N/SF)

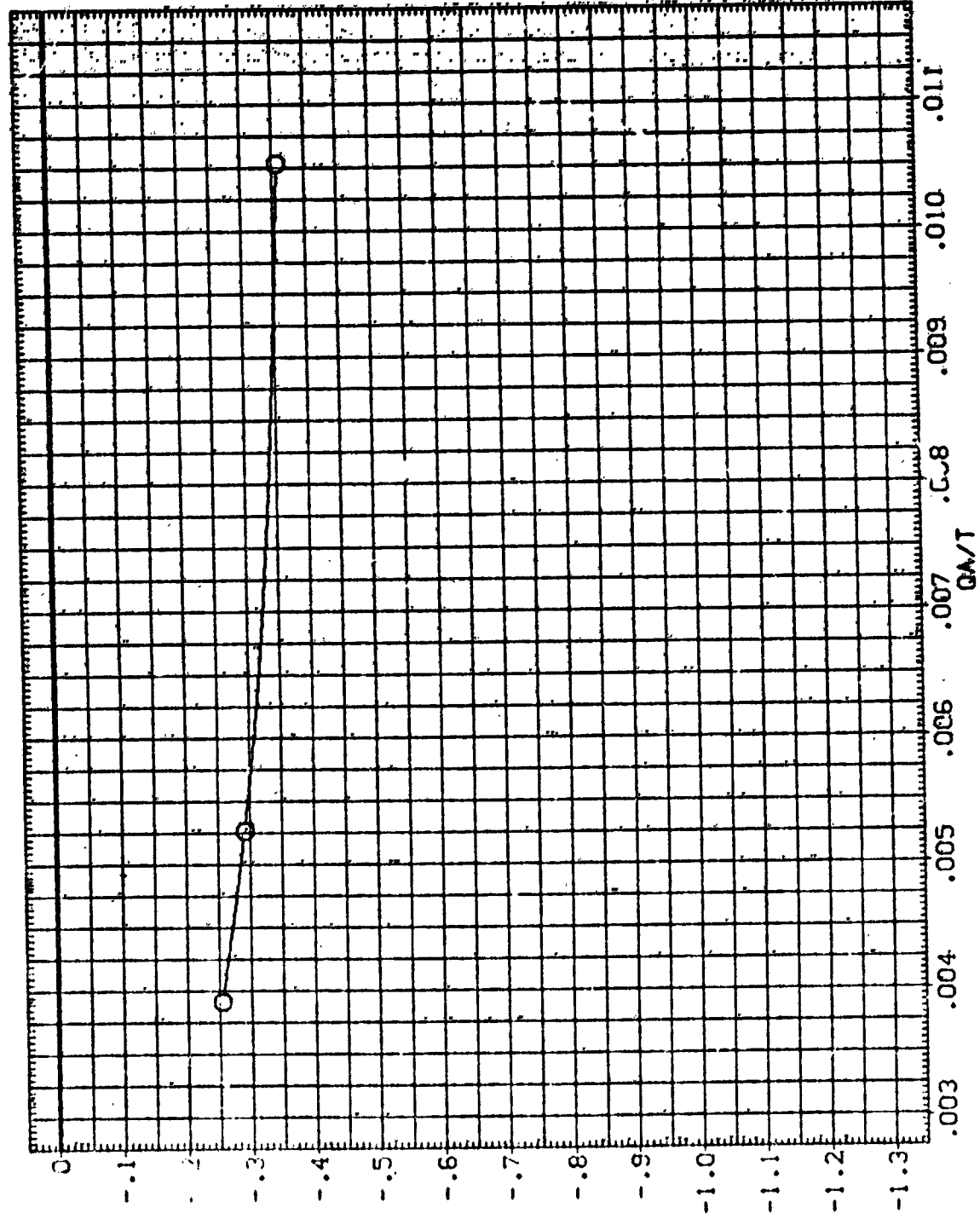


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(L) ALPHA = 20.00

DATA SET SYMBOL (SUNB11) 0 Q1A84 CONFIGURATION DESCRIPTION LARC CFMT 1A8 (MA-222)

ELEVON .080 NO. JET 2.000 BDFLAP .080 BETA .000

REFERENCE INFORMATION
 SREF 2696.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.8800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 325.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR = SIDE FORCE, N(SF)

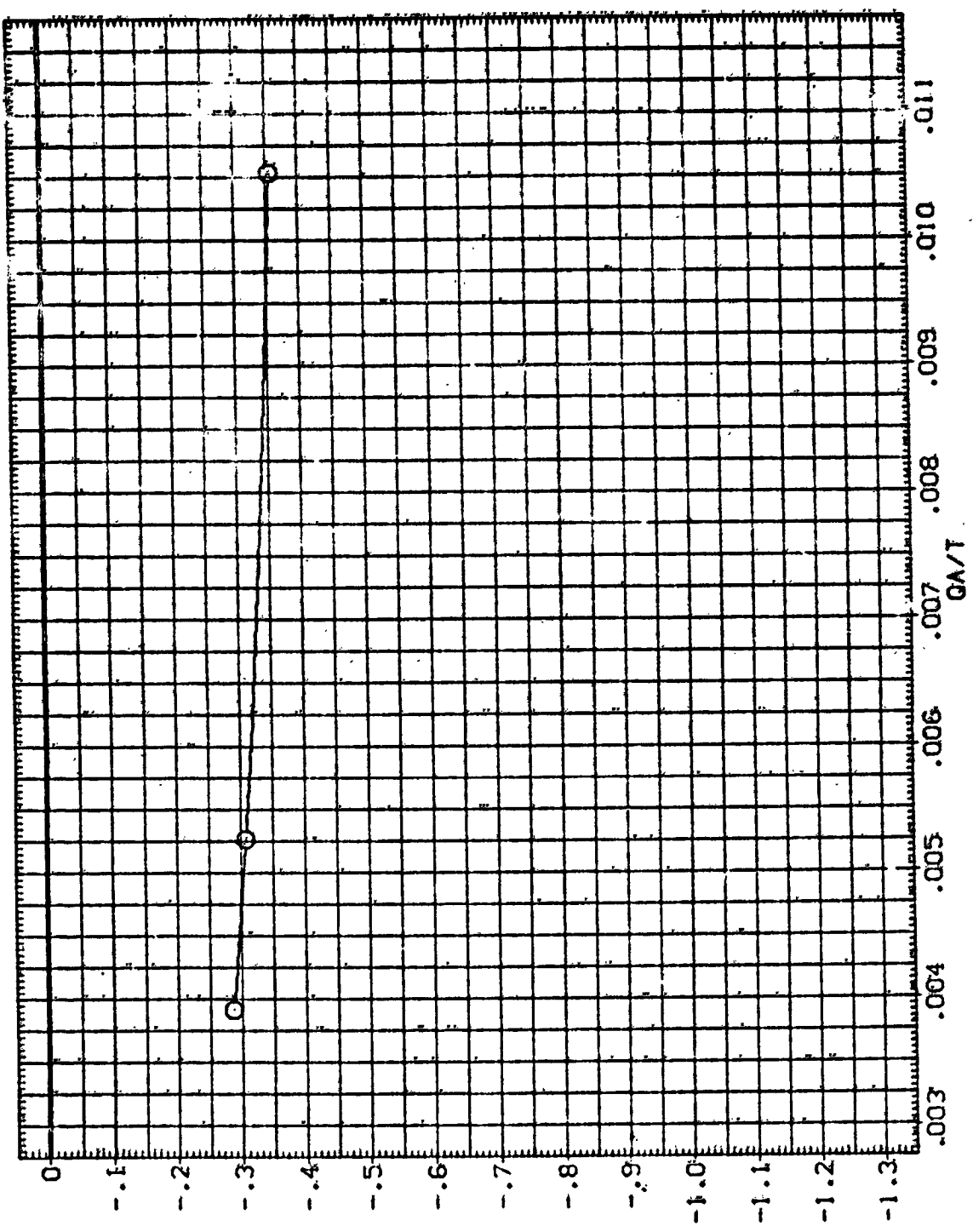


FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

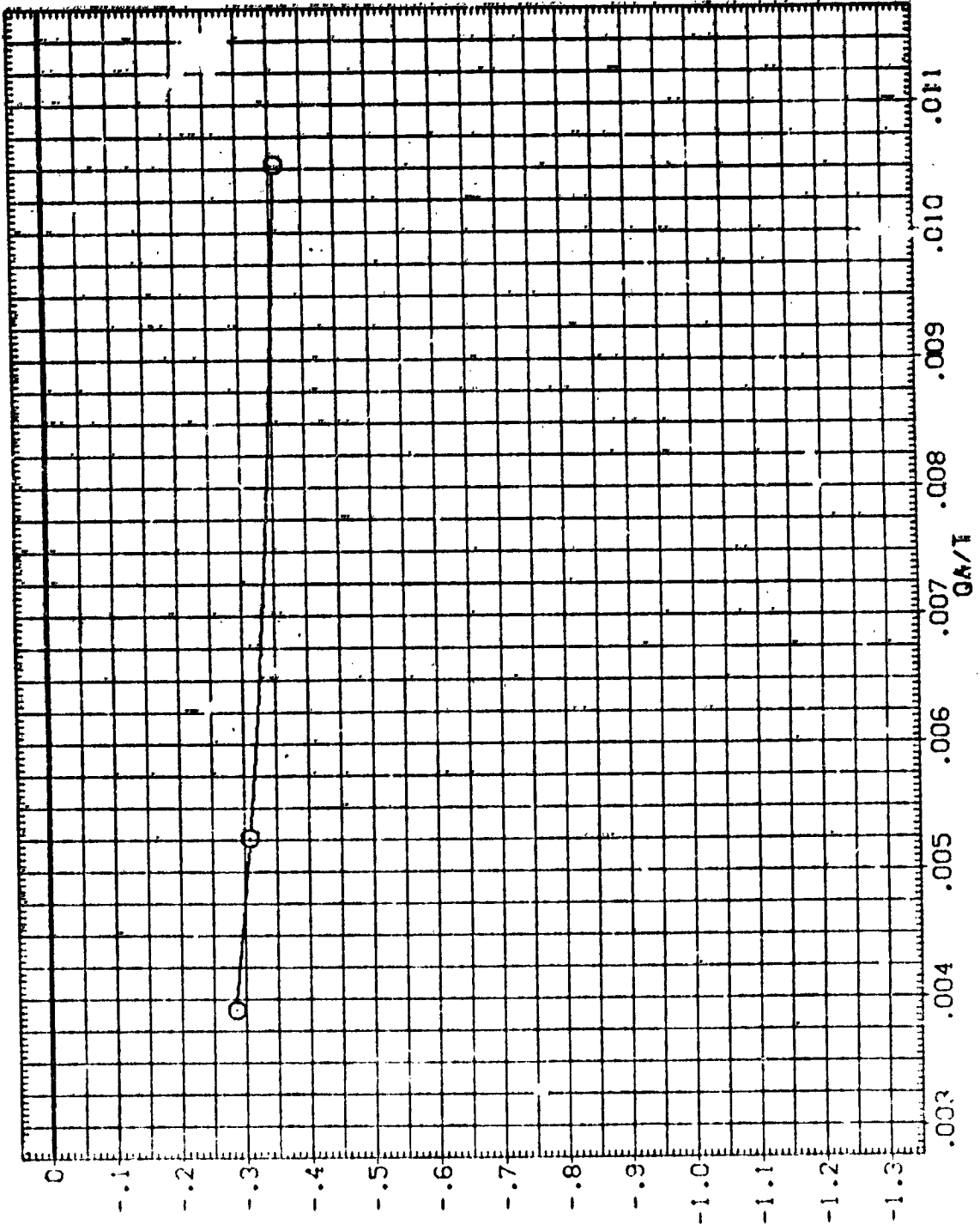
(M)ALPHA = 25.00

DATA SET SYMBOL (SJA011) ☐ Q1N84

CONFIGURATION DESCRIPTION LARC CFHT 118 (MA-221)

ELEVON .000 NO. JET 2.000 BDFLAP .000 BETA .000

REFERENCE INFORMATION
 SREF 2690.0800 SO. FT.
 LREF 474.8600 INCHES
 BREF 936.5800 INCHES
 XMRP 1076.7000 IN. XB
 YMRP .0000 IN. YB
 ZMRP 375.0000 IN. ZB
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

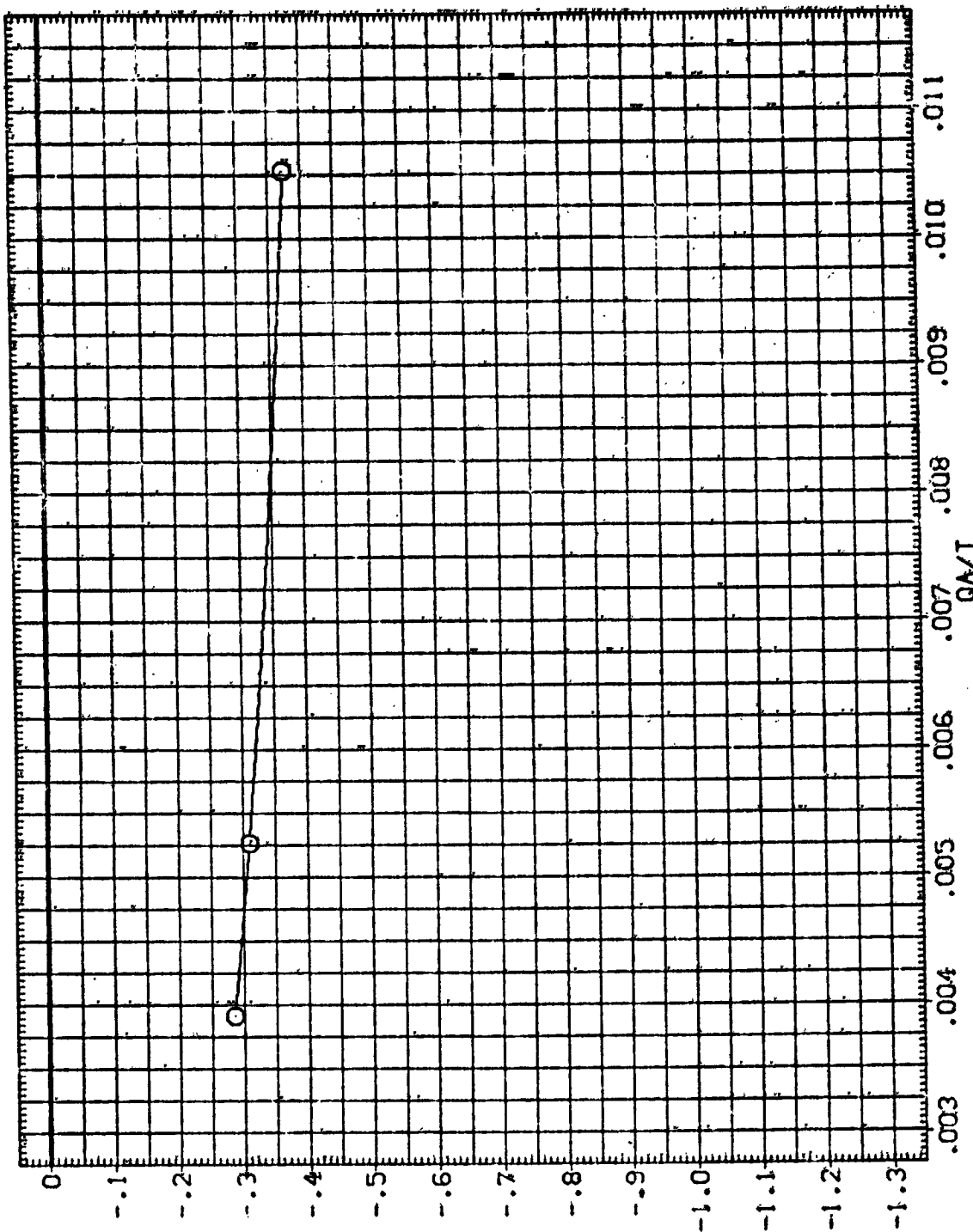
FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84.

(N)ALPHA = 30.00

DATA SET SYMBOL: 01N84
 CONFIGURATION DESCRIPTION: LARC CPWT 118 (HA-22)

ELEVON: .000
 NO. JET: 2.000
 BOFLAP: .000
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2692.0000 INCHES
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. YD
 YMRP: .0000 IN. YD
 ZMRP: 375.0000 IN. YD
 SCALE: .0100



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NCSF

FIGURE 30. AMPLIFICATION FACTORS FOR JETS N84

(α) ALPHA = 35.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CJA188)	QIN79	LARC CFHT 118 (MA-22)
(CJA187)	QIN79	LARC CFHT 118 (MA-22)
(CJA186)	QIN79	LARC CFHT 118 (MA-22)

ELEVON NO. JET BDPLAP T/OA-1

.000	1.000	.000	190.000
.000	1.000	.000	95.000
.000	1.000	.000	47.500

REFERENCE INFORMATION

SREF	2690.0000	50 FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. YD
YMRP	.0900	IN. YD
ZMRP	375.0000	IN. YD
SCALE	.0400	

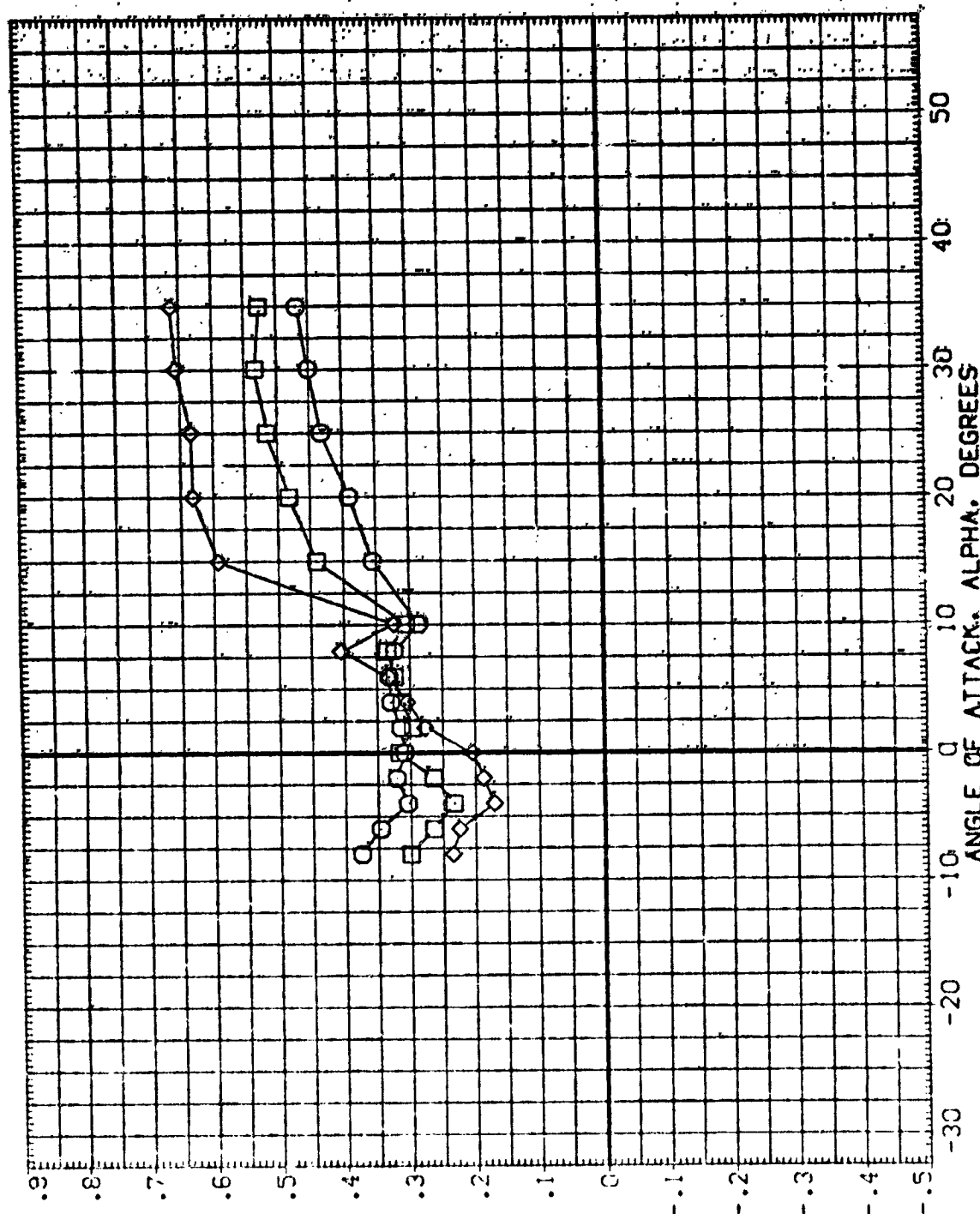


FIGURE 31. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N79

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	T/QA-1	REFERENCE INFORMATION
(CJA198)	LARC CFHT 118 (MA-22)	.000	1.000	.000	199.080	SREF 2690.0000 SQ. FT.
(CJA197)	LARC CFHT 118 (MA-22)	.000	1.000	.000	95.000	LREF 474.8000 INCHES
(CJA196)	LARC CFHT 118 (MA-22)	.000	1.000	.000	47.500	BREF 936.6800 INCHES
						XMRP 1076.7000 IN. X0
						YMRP .0000 IN. Y0
						ZMRP 375.0000 IN. Z0
						SCALE .0100

RCS JET AMPLIFICATION FACTOR - ROLL, NCRM

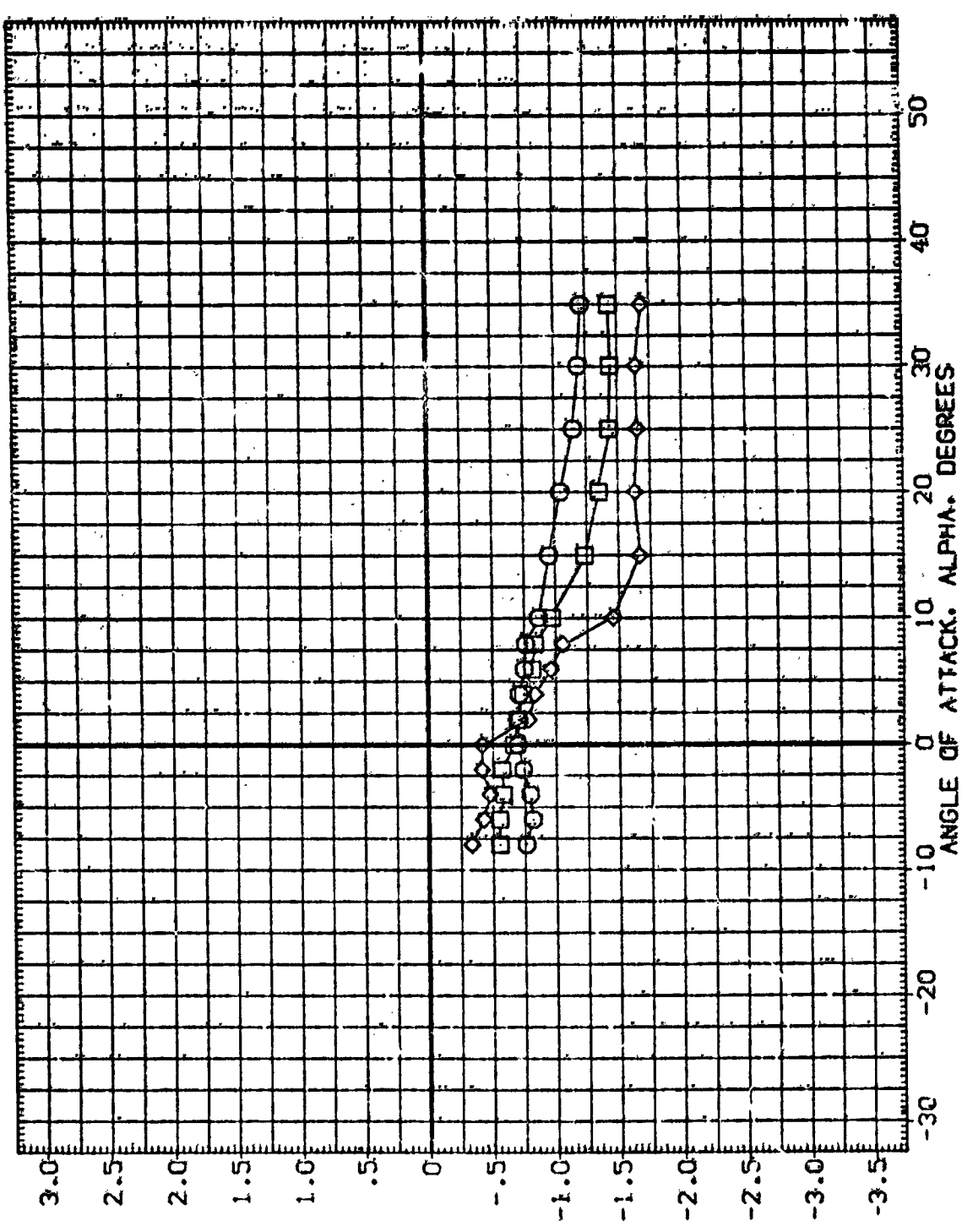


FIGURE 31. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N79

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CJA199) LARC CFMT 118 (MA-22)

(CJA197) LARC CFMT 118 (MA-22)

(CJA196) LARC CFMT 118 (MA-22)

ELEVON NO. JET BOWFLAP TADA-7

.000 1.000 .000 190.000

.000 1.000 .000 95.000

.000 1.000 .000 47.500

REFERENCE INFORMATION

SREF 2690.0000 SQ. FT.

LREF 474.8000 INCHES

BREF 936.8000 INCHES

XREF 1076.7000 IN. X

YREF .0000 IN. Y

ZREF 375.0000 IN. Z

SCALE .0100

RCS JET AMPLIFICATION FACTOR - YAW, NCM

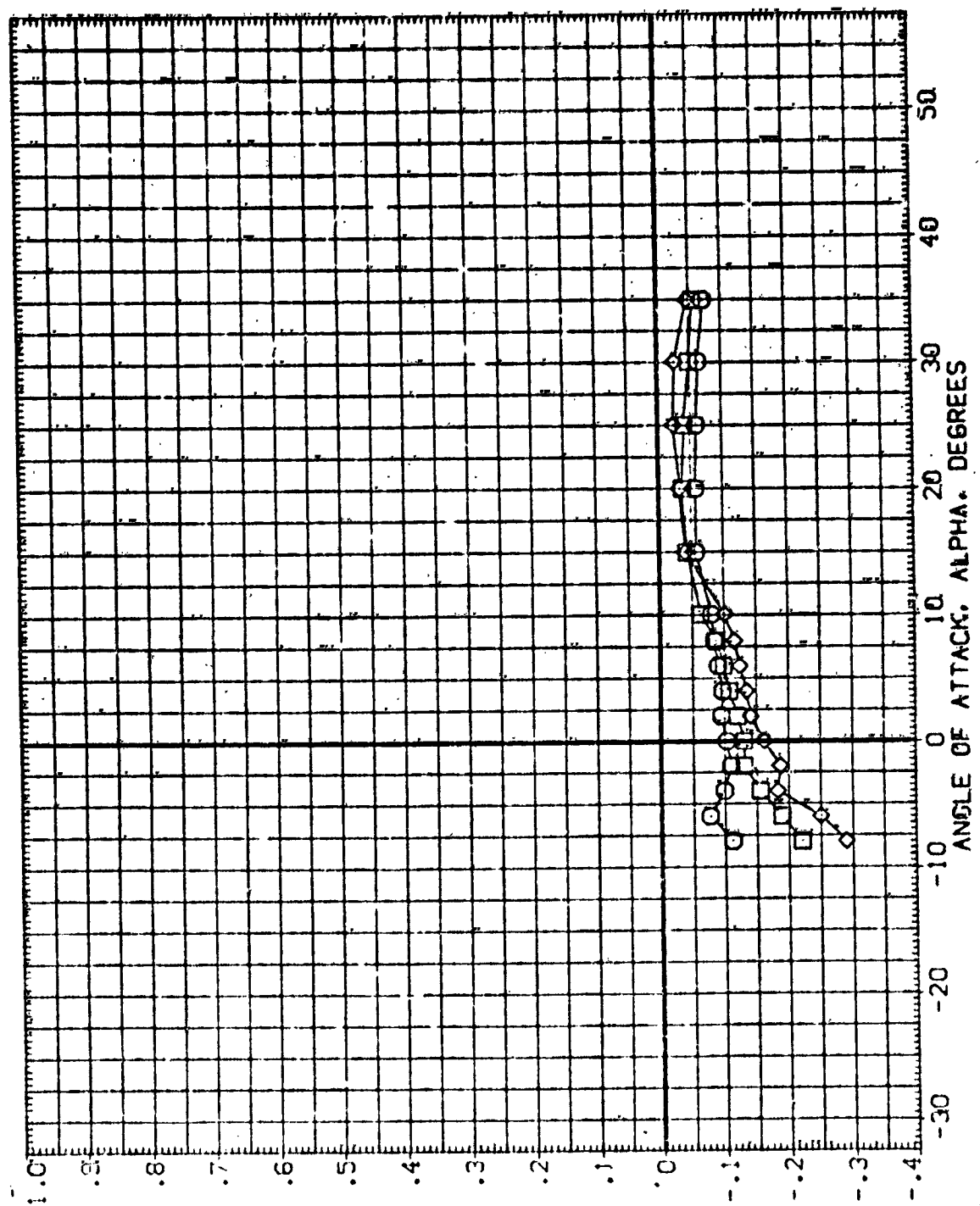


FIGURE 31. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N79

(A)MACH = 10.33

DATA SET 5-100L CONFIGURATION DESCRIPTION

(CJA198)	01M79	LARC CFMT 119 (MA-227)
(CJA197)	01M79	LARC CFMT 119 (MA-227)
(CJA196)	01M79	LARC CFMT 119 (MA-227)

ELEVON NO. JET BDFLAP T/OA-1

.000	1.000	.000	190.000
.000	1.000	.000	95.000
.000	1.000	.000	47.500

REFERENCE INFORMATION

SREF	26201.6000	50. FT.
LREF	474.6000	INCHES
BREF	336.6000	INCHES
XREF	1076.7000	IN. X0
YREF	.0000	IN. Y0
ZREF	375.0000	IN. Z0
SCALE	.0100	

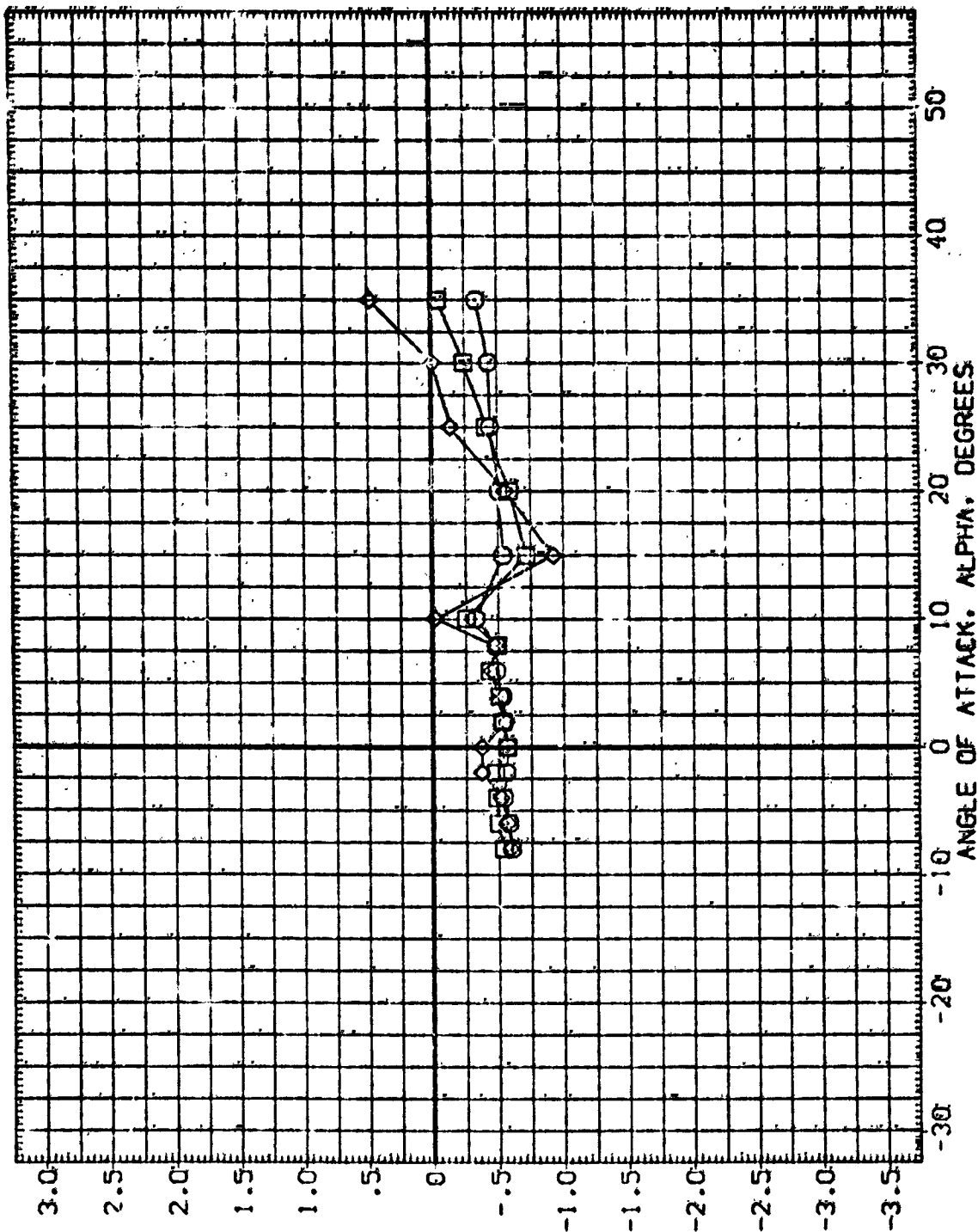


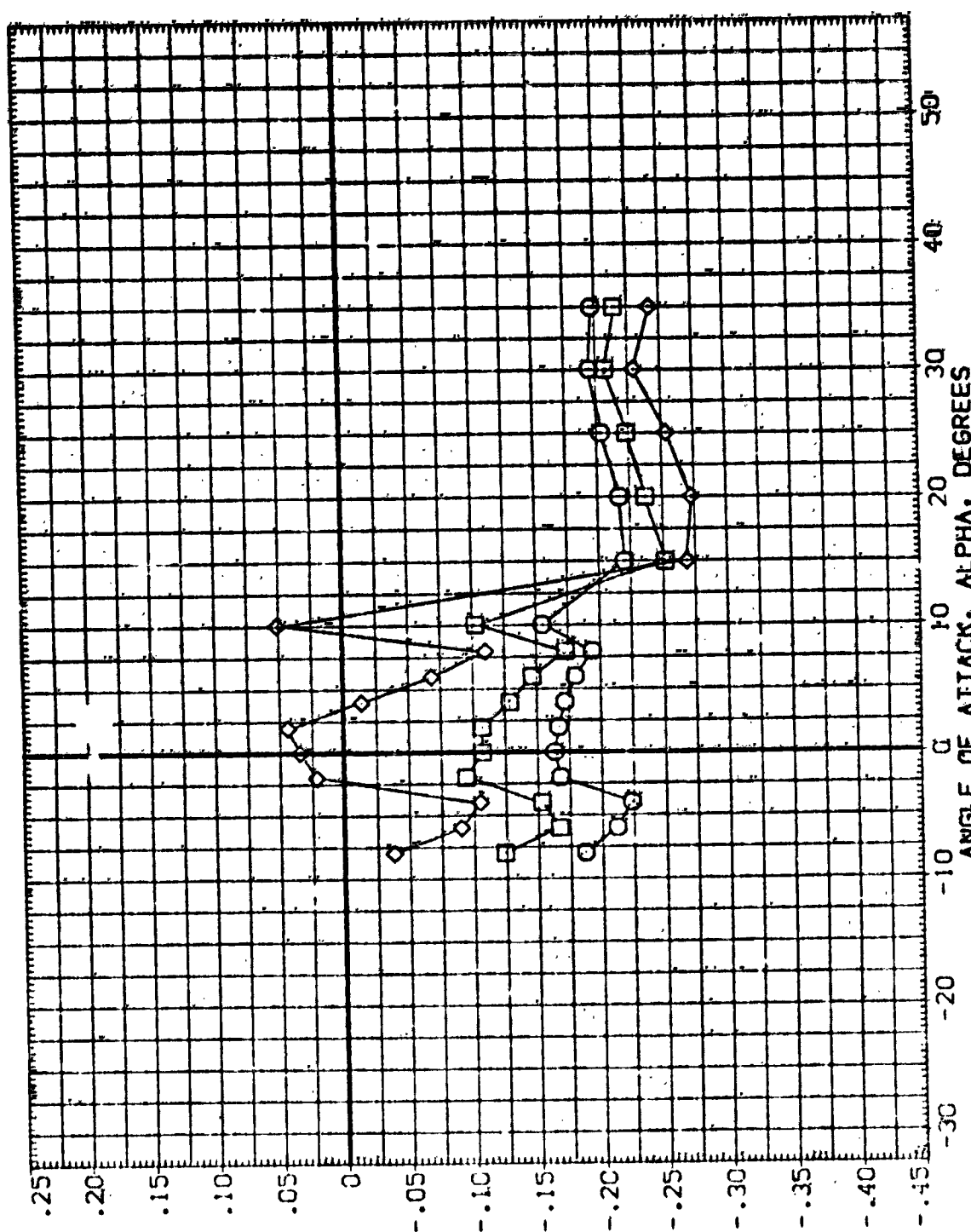
FIGURE 31. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N79

(MACH = 10.33)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA198) QIN79 LARC CFMT 118 (MA-22)
 (CJA197) QIN79 LARC CFMT 118 (MA-22)
 (CJA196) QIN79 LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP T/OB-I
 .000 1.000 .000 190.000
 .000 1.000 .000 99.000
 .000 1.000 .000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 50. FT.
 LREF 474.8000 INCHES
 BREF 926.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NARF)

FIGURE 31. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N79

(A)MACH = 10.33

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA198) QIN79 LARC CFMT 118 (MA-22)
 (CJA197) QIN79 LARC CFMT 118 (MA-22)
 (CJA196) QIN79 LARC CFMT 118 (MA-22)

ELEVON NO. 1ET BOFLAP 1/BA-1 REFERENCE INFORMATION
 .000 .000 2890.0000 SJ 11
 .000 .000 474.8000 INCHES
 .600 .000 936.6800 INCHES
 .000 .000 1076.7000 IN. 10
 .000 .000 325.0000 IN. 10
 .000 .000 325.0000 IN. 20
 .000 .000 325.0000 IN. 20
 SCALE

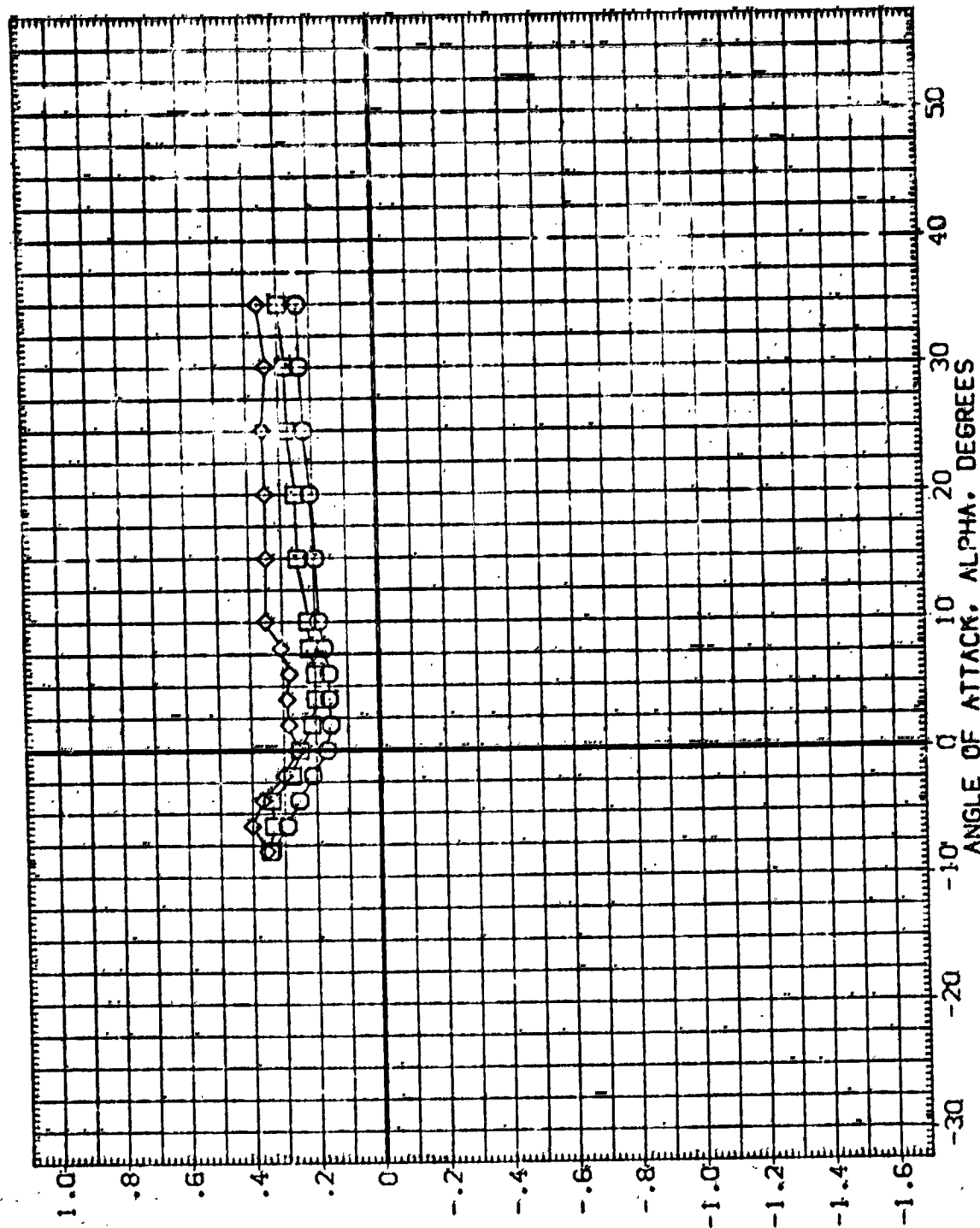


FIGURE 31. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N79

(M)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CJA201)	Q1M4S	LARC CFHT 118 (MA-22)
(CJA200)	Q1M4S	LARC CFHT 118 (MA-22)
(CJA199)	Q1M4S	LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP T/OA-1

.000	2.000	.000	198.000
.000	2.000	.000	95.000
.000	2.000	.000	47.500

REFERENCE INFORMATION

SREF	2690.0000	SQ. FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. Y0
YMRP	.0000	IN. Z0
ZMRP	375.0000	IN. Z0
SCALE	.0100	

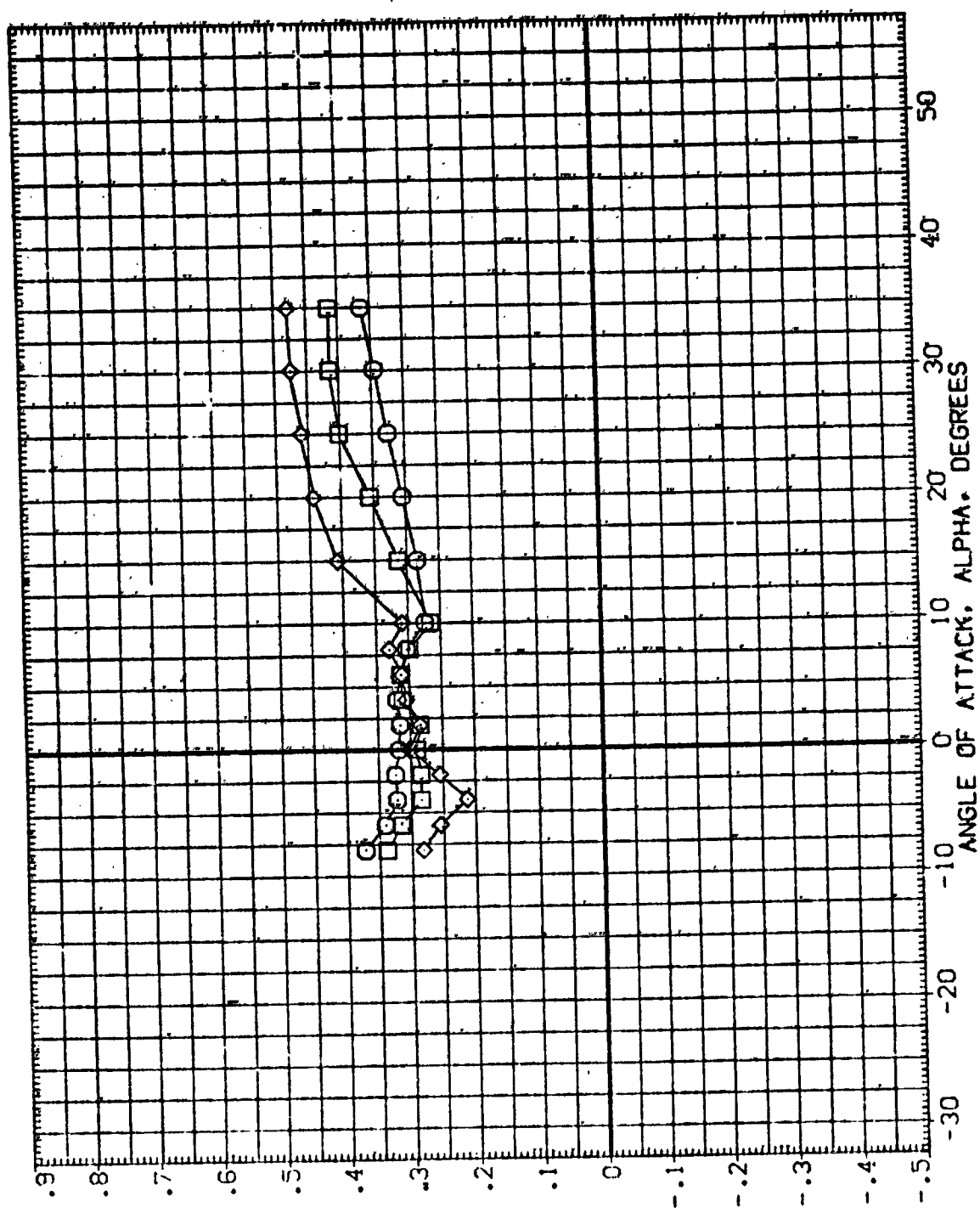


FIGURE 32. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N49

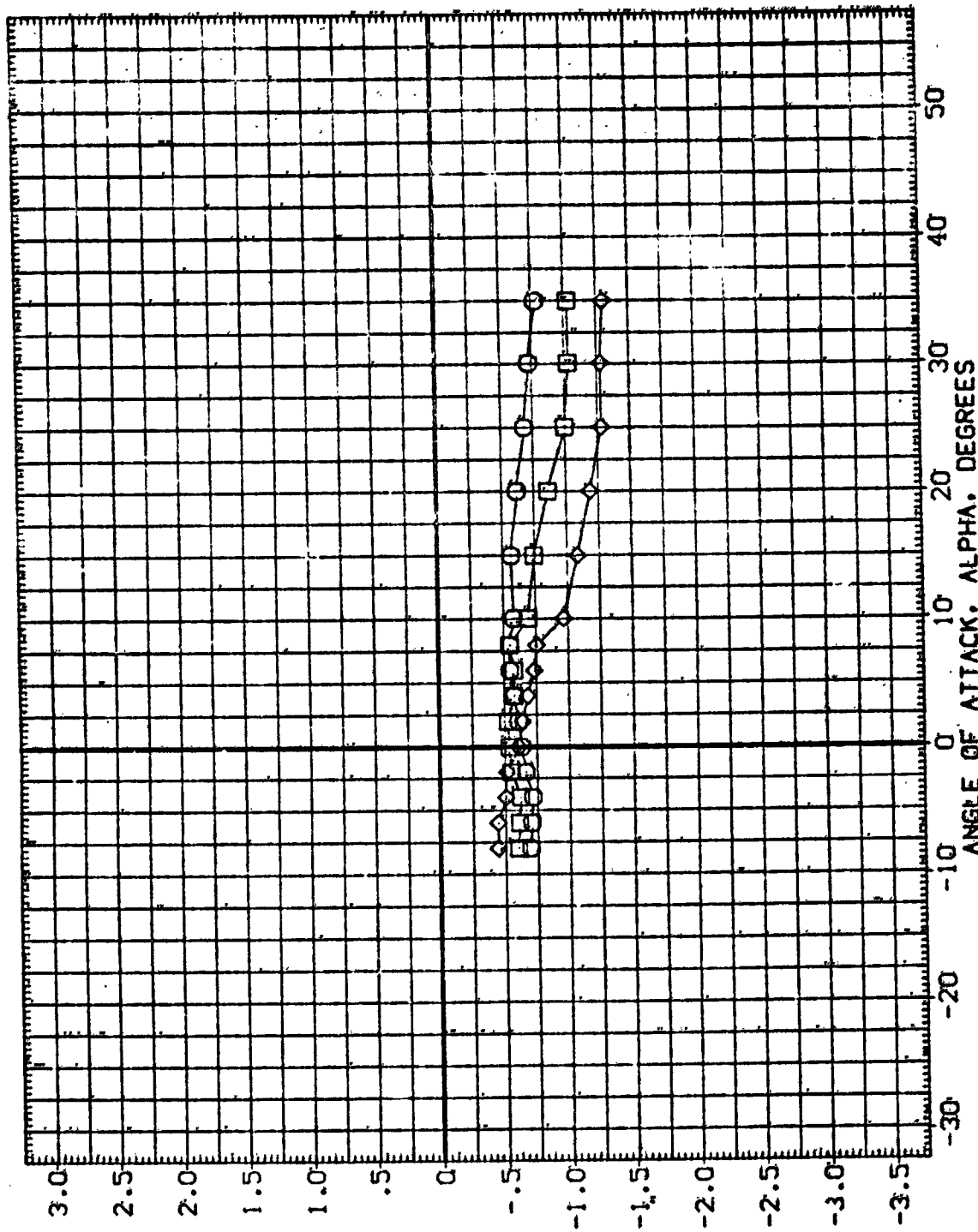
(A)MACH = 10.33

DATA SET SYMB
(CJAZQ1)
(CJA200)
(CJA199)

CONFIGURATION DESCRIPTION
J1N49 LARC CFMT 118 (MA-22)
O'N49 LARC CFMT 118 (MA-22)
C1N49 LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP T/CN-1

REFERENCE INCHES
SREF 2690.0000 SQ. FT.
LREF 474.8090 INCHES
BREF 936.6800 INCHES
XMRP 1026.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100



RCS JET AMPLIFICATION FACTOR - POL, NORM

FIGURE 32. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N49

(A)MACH = 10.33

REFERENCE INFORMATION

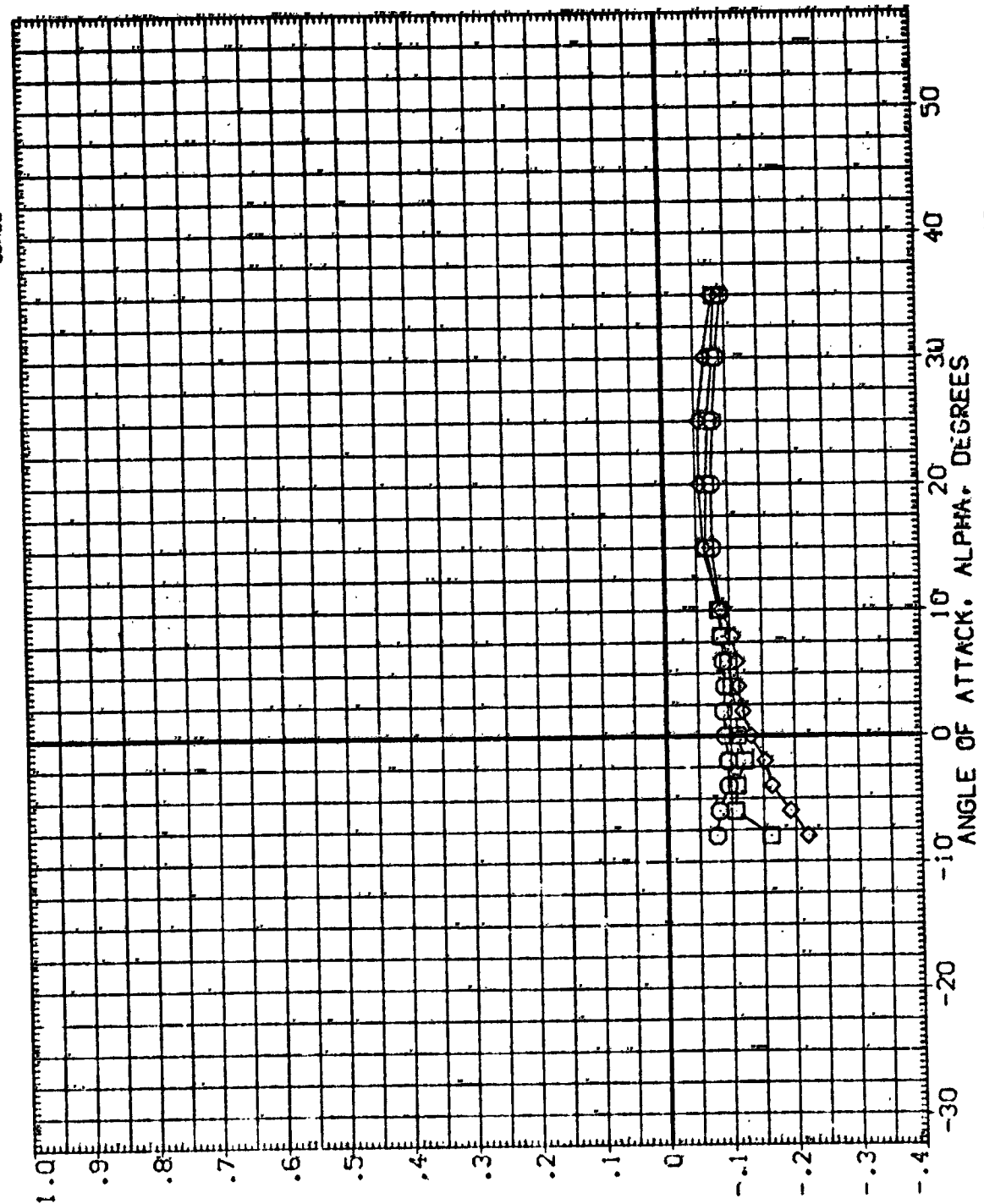
SREF	2690.0000	50.FT.
LREF	474.8000	INCHES
BRFP	936.6800	INCHES
XRFP	1076.7000	IN. X0
YRFP	.0000	IN. Y0
ZRFP	373.0000	IN. Z0
SCALE	.0100	

ELEVON

NO. JET	2.000
BOFLAP	.000
T/OA-1	190.000
	95.000
	47.500

DATA SET SYMBOL

QIN49	LARC CFHT 118 (MA-22)
QIN49	LARC CFHT 118 (MA-22)
QIN49	LARC CFHT 118 (MA-22)



RCS JET AMPLIFICATION FACTOR - YAW, NCM)

FIGURE 32. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET M49

(A) MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	70A-1	REFERENCE INFORMATION
(CJA201)	QINMS LARC CFMT 118 (MA-22)	.080	2.000	.000	190.000	SREF 2650.0000 30.00 FT.
(CJA202)	QINMS LARC CFMT 118 (MA-22)	.000	2.000	.000	95.000	LREF 474.8000 INCHES
(CJA198)	QINMS LARC CFMT 118 (MA-22)	.000	2.000	.000	47.500	BREF 936.5800 INCHES
						XMRP 1076.7000 IN. X0
						YMRP .0000 IN. Y0
						ZMRP 375.0800 IN. Z0
						SCALE .0100

RCS JET AMPLIFICATION FACTOR = NORMAL FORCE, N(NF)

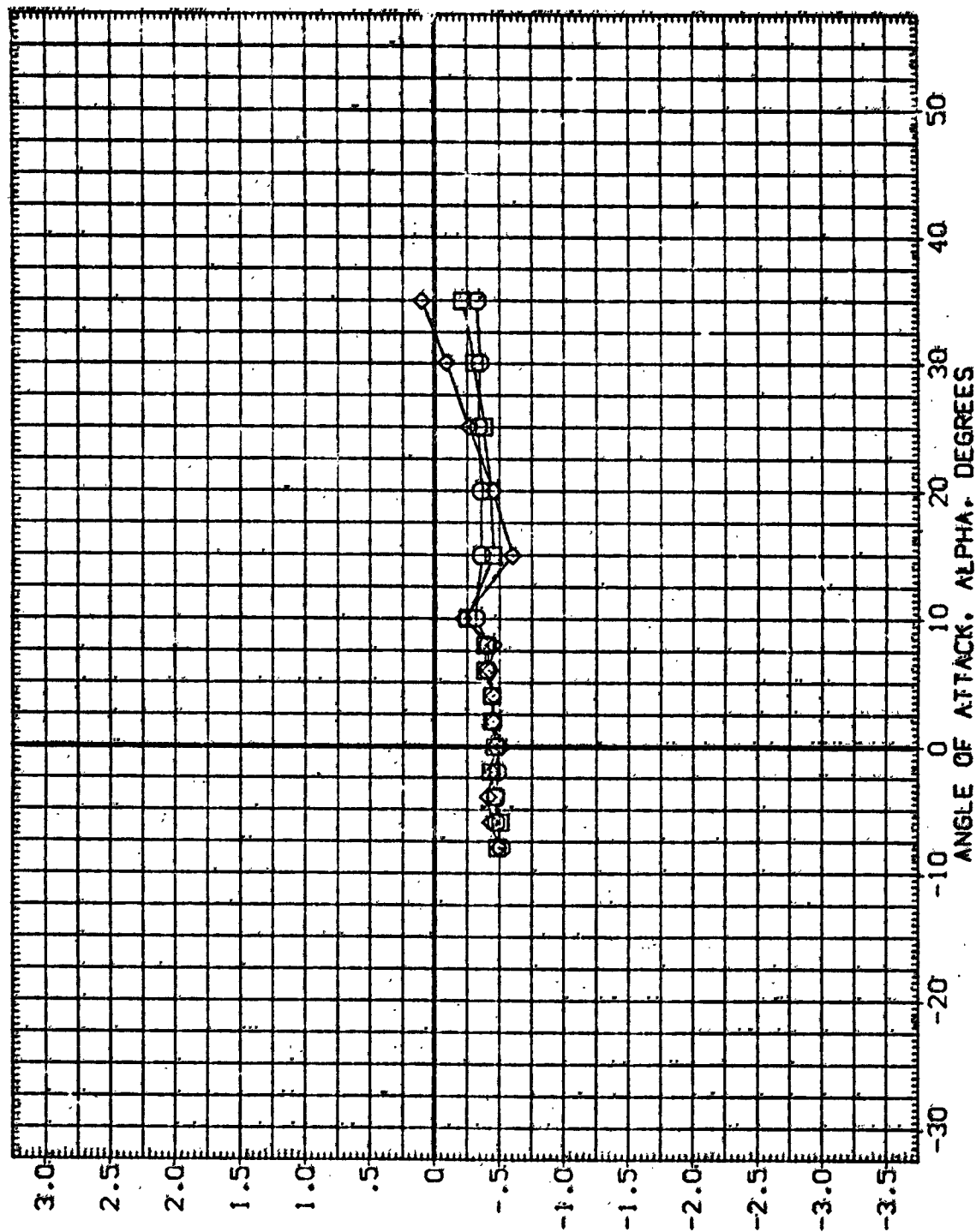


FIGURE 32. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N49

(A)MACH = 10.33

DATA SET SYMBOL
 (CJA201) 2
 (CJA200) 3
 (CJA199) 4

NO. JET
 2.000
 2.000
 2.000

REFERENCE INFORMATION
 SREF 2690.0800
 LREF 474.8000
 BREF 936.6800
 XREF 1076.7000
 YREF 375.0800
 ZREF 0.0100
 SCALE

CONFIGURATION DESCRIPTION
 LARC CFHT 118 (MA-22)
 LARC CFHT 118 (MA-22)
 LARC CFHT 118 (MA-22)

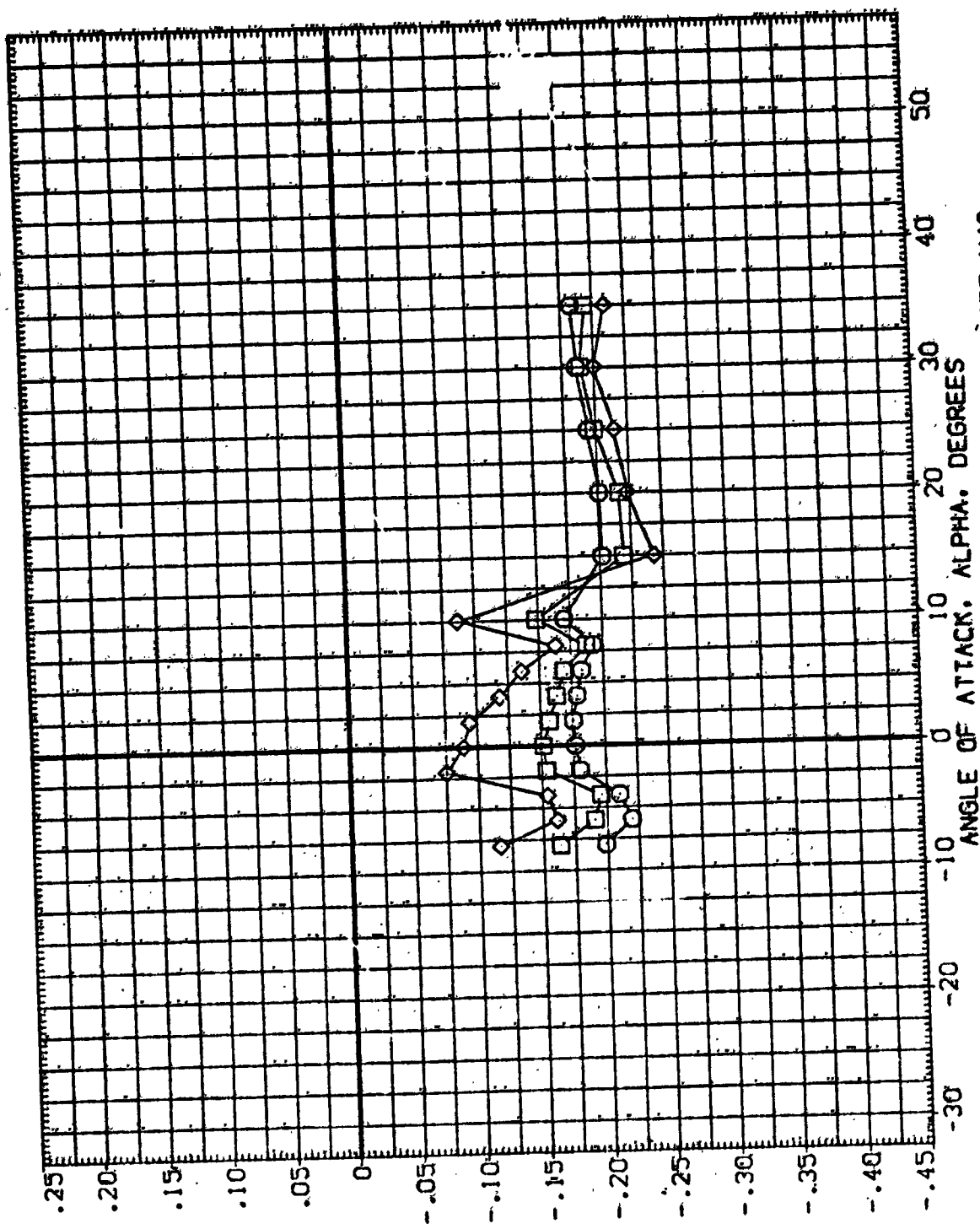


FIGURE 32. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N49

(MACH = 10.33)

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

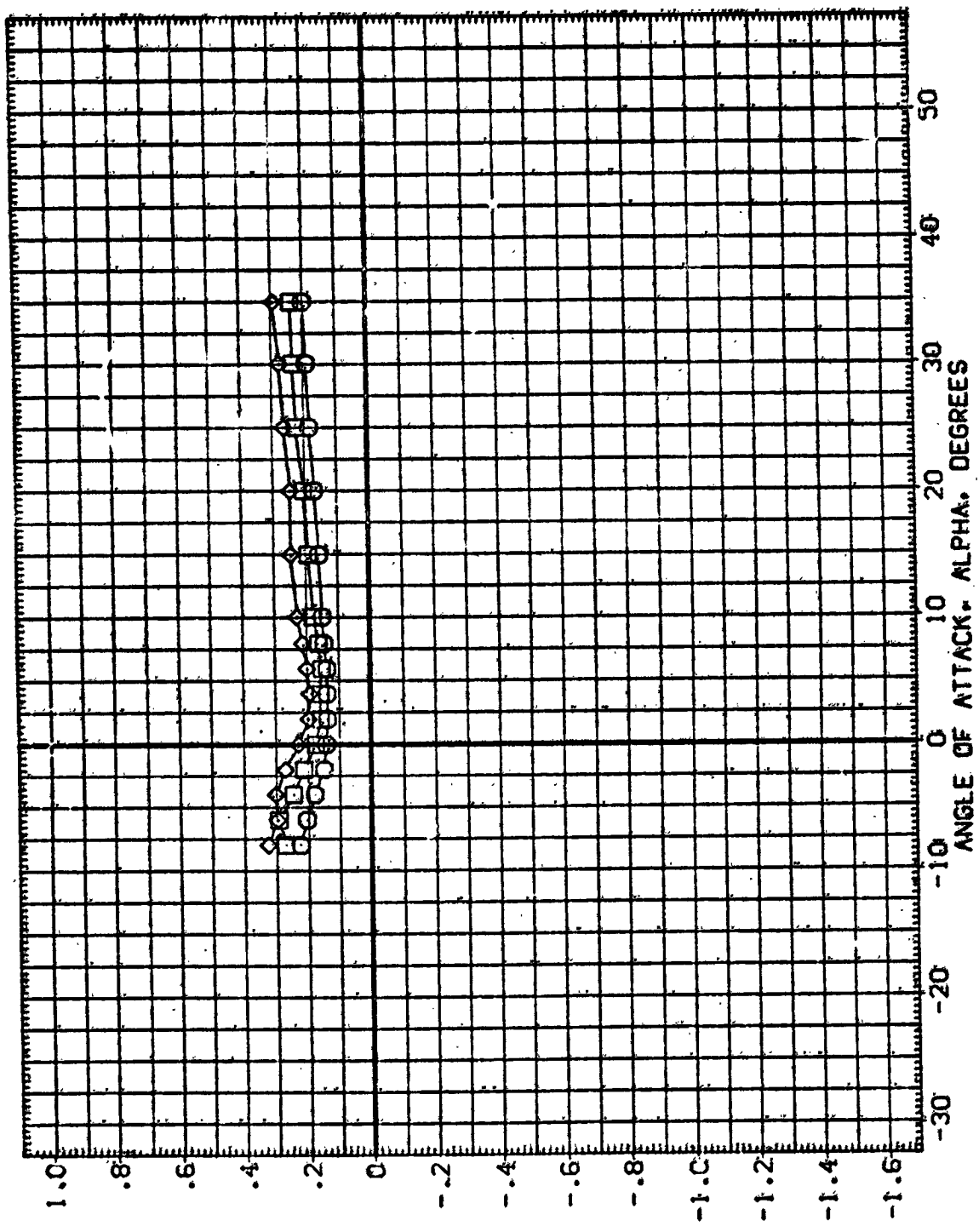


FIGURE 32. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N49

(A)MACH = 10.33

DATA SET SYMBOL: QIN83
 (CJA228)
 (CJA229)
 (CJA230)

CONFIGURATION DESCRIPTION
 LARC CFHT 118 (NA-22)
 LARC CFHT 118 (NA-22)
 LARC CFHT 118 (NA-22)

ELEVON NO. JET BOFLAP T/OA-1
 .000 3.000 .000 190.000
 .000 3.000 .000 95.000
 .000 3.000 .000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6000 INCHES
 YMRP 1076.7000 IN. X0
 YMRP 375.8000 IN. Y0
 ZMRP .0100 IN. Z0
 SCALE

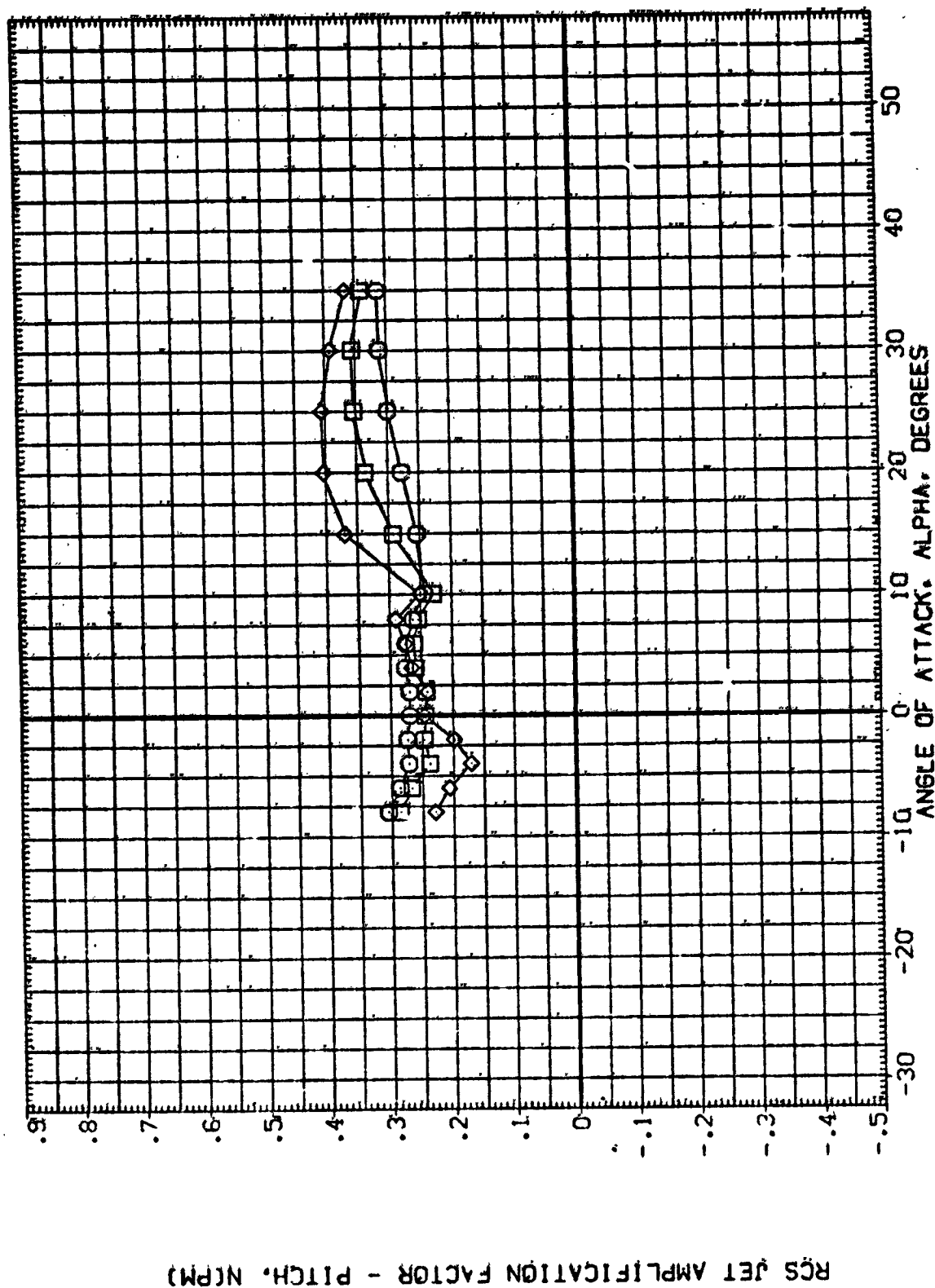


FIGURE 33. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N83

CAJ MACH = 10.33

DATA SET SYMBOL
(CJA228)
(CJA229)
(CJA230)

CONFIGURATION DESCRIPTION
Q1N83 LARC CFHT 118 (MA-22)
Q1N83 LARC CFHT 118 (MA-22)
Q1N83 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDFLAP T/OA-1
.000 3.000 .000 180.000
.000 3.000 .000 55.000
.000 3.000 .000 47.500

REFERENCE INFORMATION
SREF 2680.0000 SQ. FT.
LREF 474.8880 INCHES
BREF 935.8880 INCHES
XMRP 1075.7800 IN. X
YMRP .0000 IN. Y
ZMRP 375.8000 IN. Z
SCALE .0100

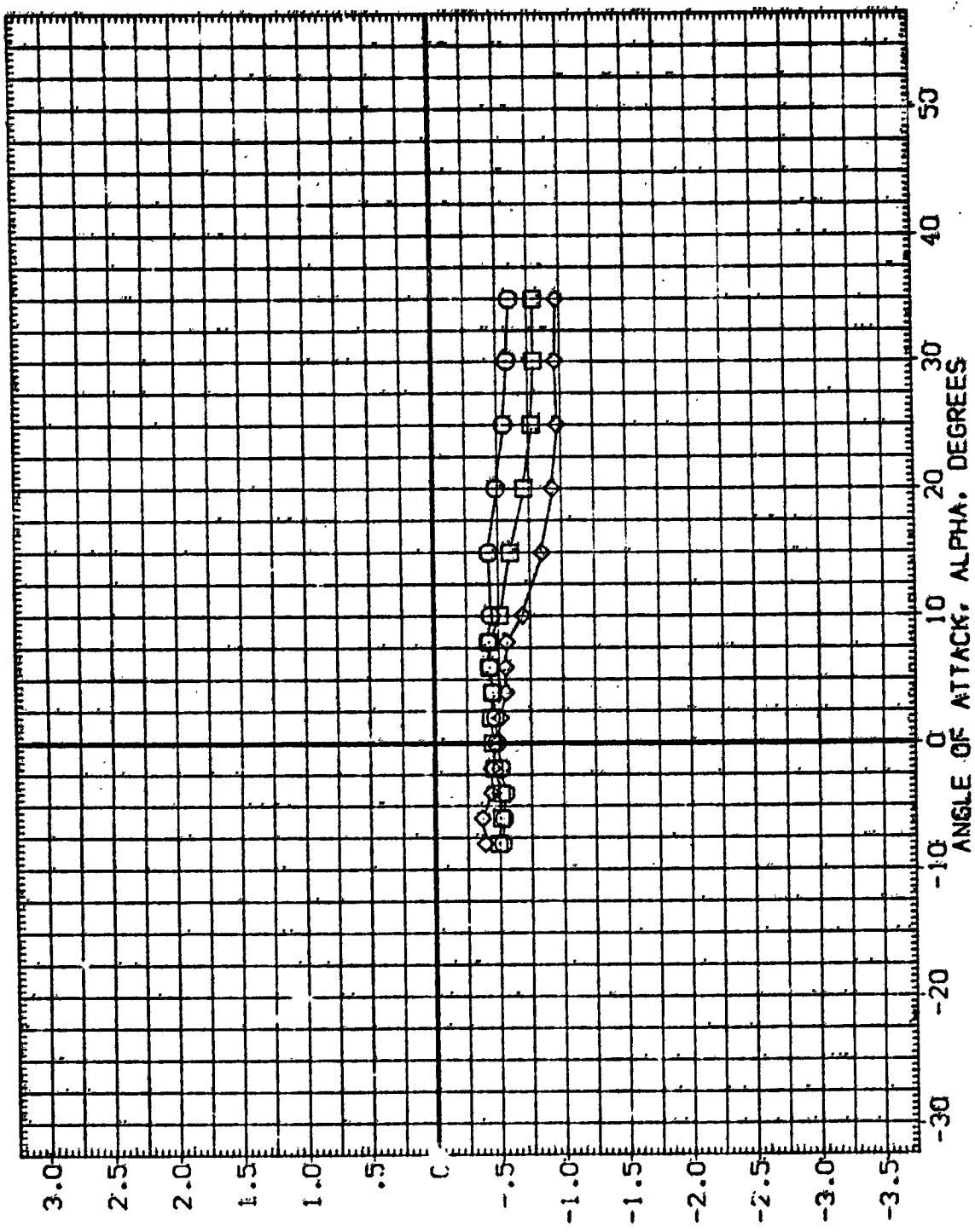


FIGURE 33. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N83

(A)MACH = 10.33

RCS JET AMPLIFICATION FACTOR - YAW, NCM)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA229) QIN83 LARC CFHT 118 (MA-22)
 (CJA229) QIN82 LARC CFHT 118 (MA-22)
 (CJA236) QIN83 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP T/OA-1
 .000 3.000 .000 190.000
 .000 3.000 .000 95.000
 .000 3.000 .000 47.500

REFERENCE INFORMATION:
 SD. FT. 2650.0000
 INCHES 424.8000
 LREF 936.6800
 BREF 1076.7000
 IN. X0
 IN. Y0
 ZMRP 375.0000
 SCALE .0100

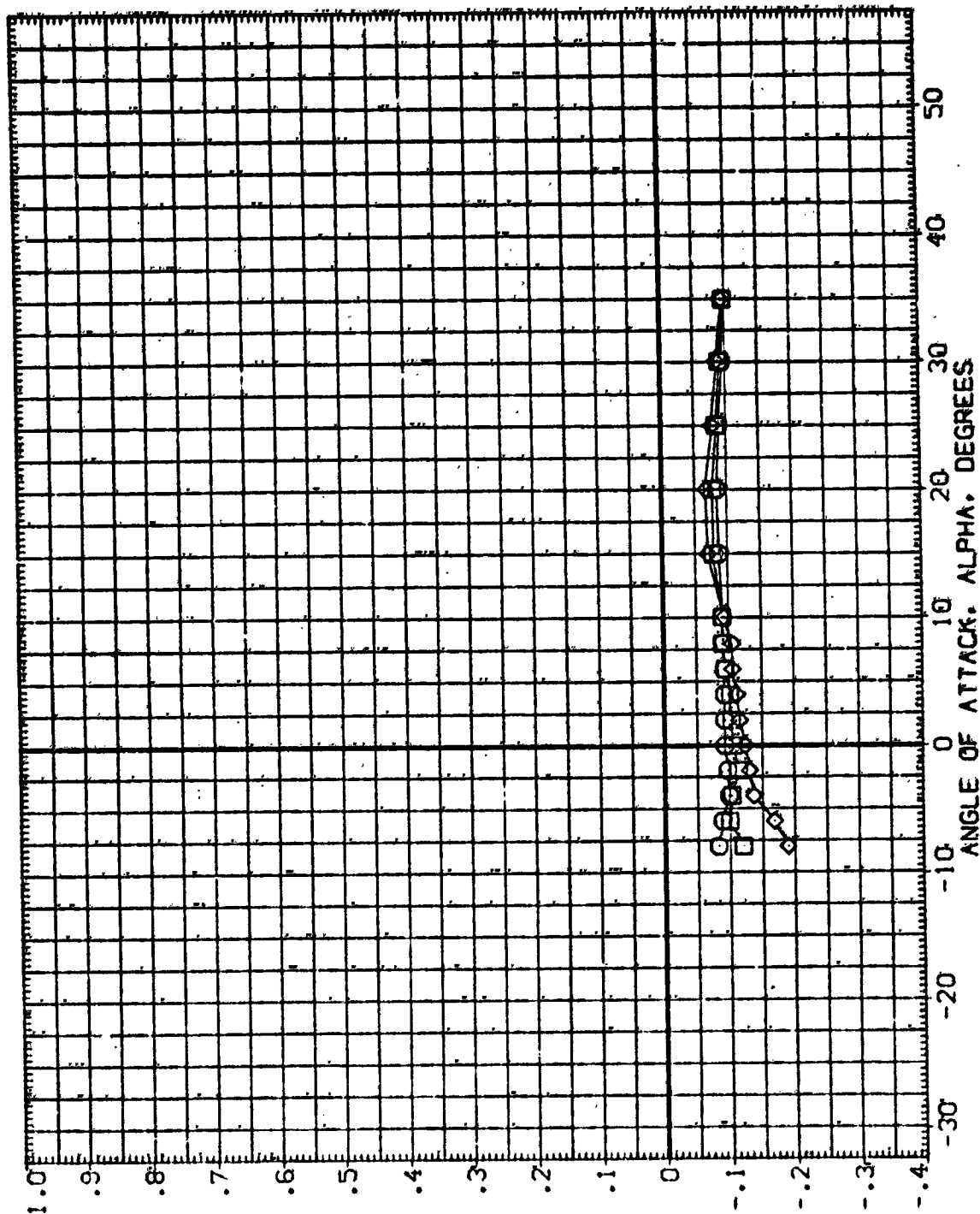


FIGURE 33. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N83

(A)MACH = 10.33

DATA SET SYMBOL: 01N83
 (CJA228)
 (CJA229)
 (CJA230)

CONFIGURATION DESCRIPTION:
 LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)

ELEVON: .000
 .000
 .000

NO. JET: 2.000
 3.000
 3.000

BOFLAP: .000
 .000
 .000

1/OA-1: 190.000
 95.000
 47.500

REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 506.6800 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

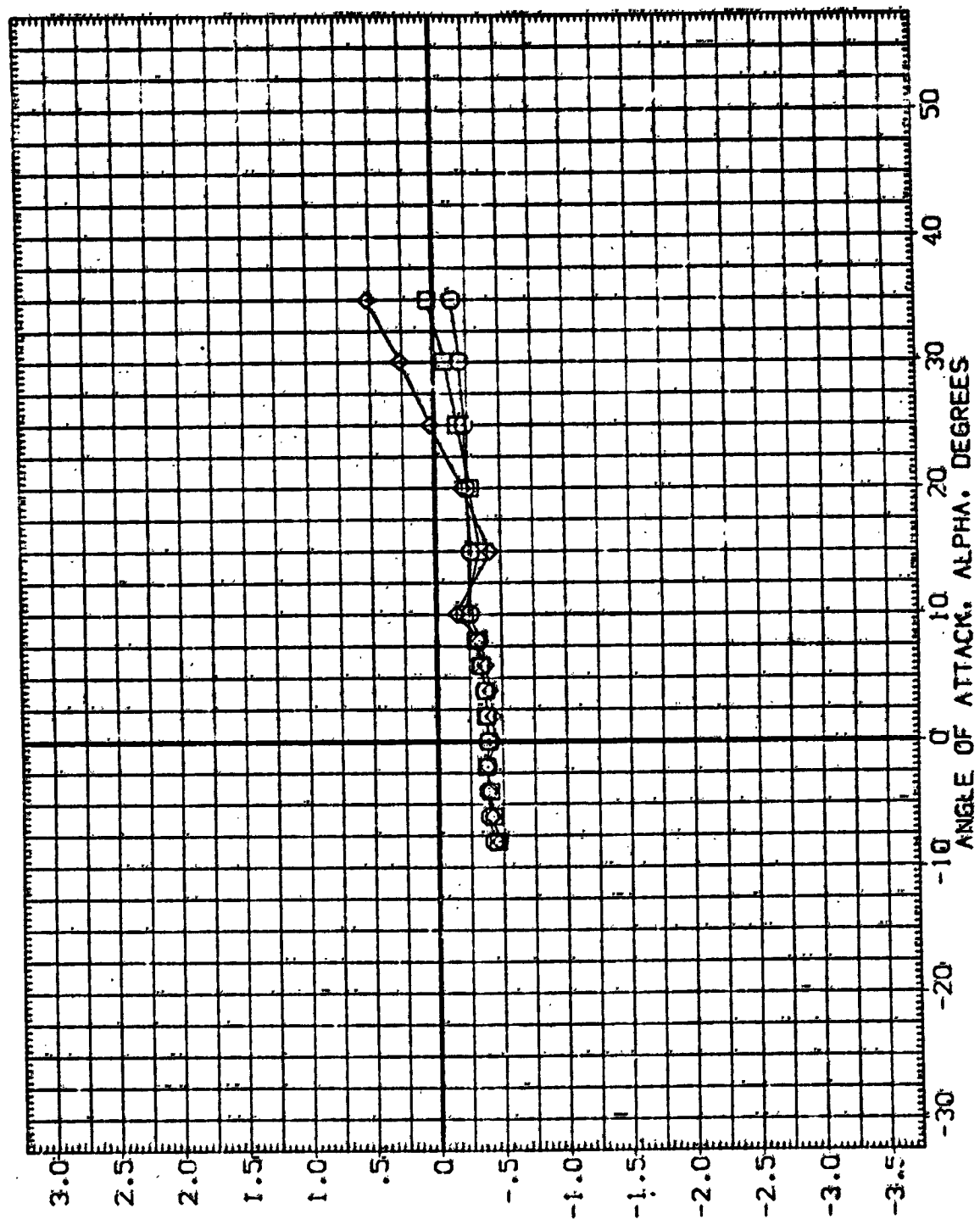


FIGURE 33. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N83

(A)MACH = 10.33

DATA SET SYMBOL
 (CJA229)
 (CJA229)
 (CJA230)

CONFIGURATION DESCRIPTION
 LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)

ELEVON NO. JET
 .000 3.000
 .000 3.000
 .000 3.000

BDF LAP
 .000
 .000
 .000

T/OA-1
 190.000
 93.000
 47.500

REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7600 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, N(AF)

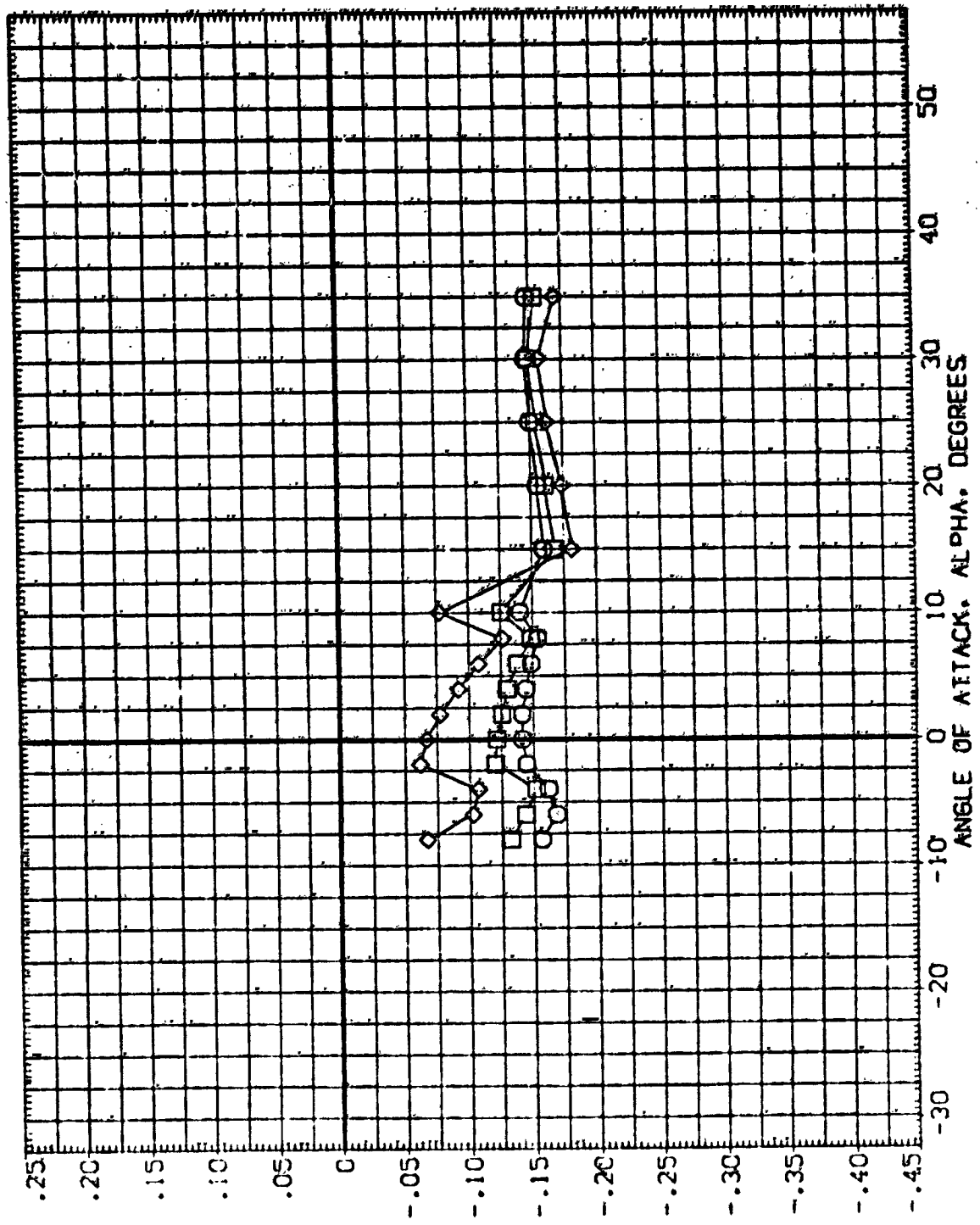


FIGURE 33. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N83

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BD FLAP	1/DA-1	REFERENCE INFORMATION
(CJA228)	GIN83 LARE CFHT 118 (MA-22)	.000	3.000	.000	190.000	SREF 2699.0000
(CJA229)	GIN83 LARE CFHT 119 (MA-22)	.000	3.000	.000	95.000	LREF 474.8000
(CJA230)	GIN83 LARE CFHT 118 (MA-22)	.000	3.000	.000	47.500	BRF 936.6800
						VRFP 1076.7000
						VRFP .0000
						ZRFP 375.0000
						SCALE .0100

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

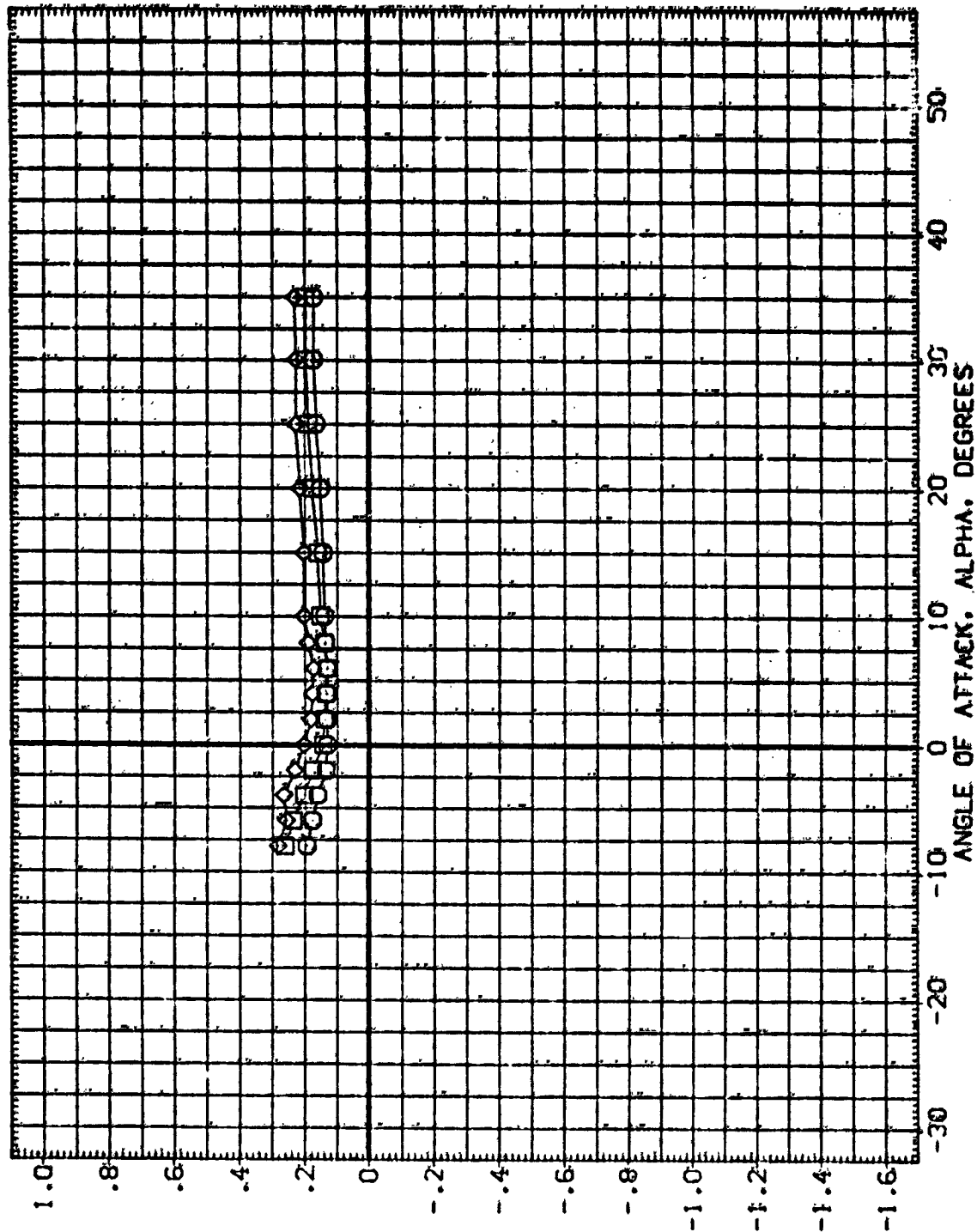


FIGURE 33. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N83

(M)MACH = 10.33

RC9 JET AMPLIFICATION FACTOR - PITCH, N(PM)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA141) OINSI LARC CENT 118 (MA-22)
 (CJA140) OINSI LARC CENT 118 (MA-22)
 (CJA139) OINSI LARC CENT 113 (MA-22)

ELEVON NO JET 80FLAP 7/0A-1
 .00% 4.000 127.700
 .01% 4.000 95.000
 .02% 4.000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

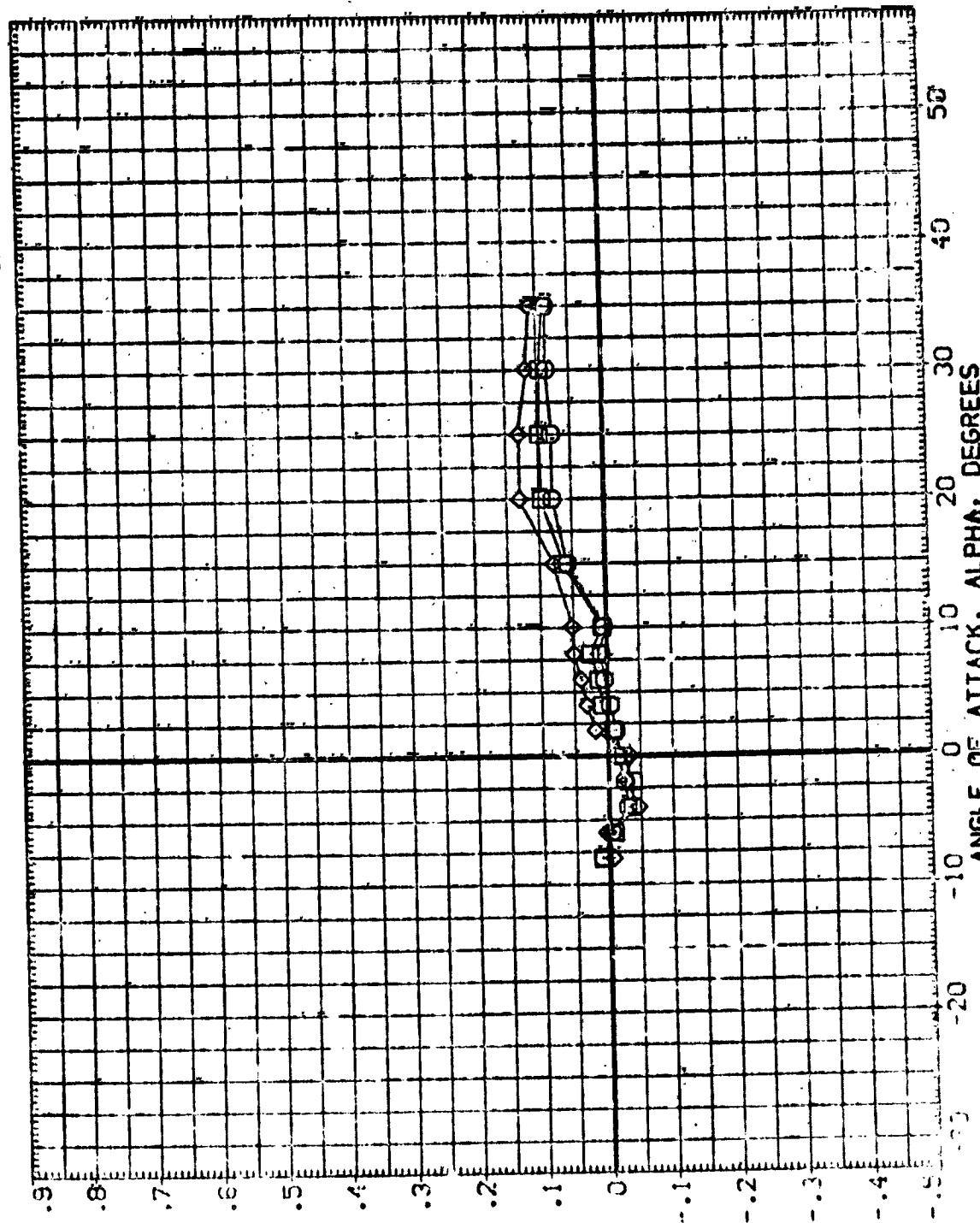


FIGURE 34. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N51

(A)MAC = 10.33

DATA SET SYMBOL: (CJA141)
 (CJA140)
 (CJA139)
 (CJA138)

CONFIGURATION DESCRIPTION:
 LARC CFM1 118 (MA-22)
 LARC CFM1 118 (MA-22)
 LARC CFM1 118 (MA-22)

ELEVON: 4.000
 NO. JET: 4.000
 REFLEX: 127.700
 T/OA-1: 127.700
 REFLEX: 127.700
 T/OA-1: 127.700

RETARDER: 2890.8000
 SREF: 474.8100
 LREF: 936.6806
 BREF: 1076.7200
 YREF: 0.0000
 ZREF: 375.0000
 SCALE: .0100

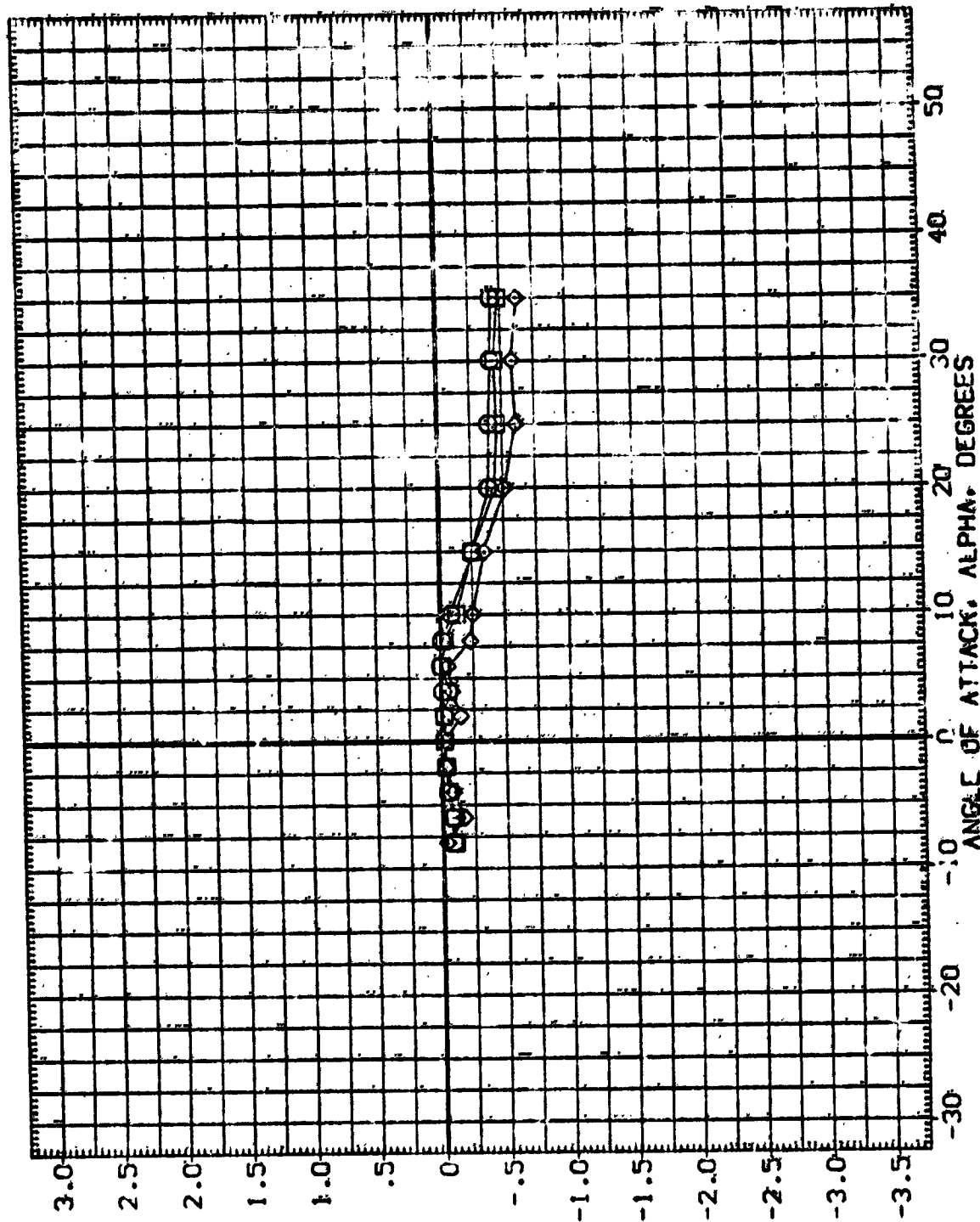


FIGURE 34. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N51

(A) MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CJA141)	LARC CFHT 118 (MA-22)
(CJA140)	LARC CFHT 118 (MA-22)
(CJA139)	LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP T/OA-1

ELEVON	NO. JET	BOFLAP	T/OA-1
.000	4.000	.090	127.700
.000	4.000	.090	95.000
.000	4.000	.006	47.500

REFERENCE INFORMATION

REFERENCE INFORMATION	SO. FT.	INCHES
SREF	2690.0000	INCHES
LREF	474.8000	INCHES
BREF	935.6000	IN. X0
XMRP	1076.7000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	375.0000	IN. Z0
SCALE	.0100	

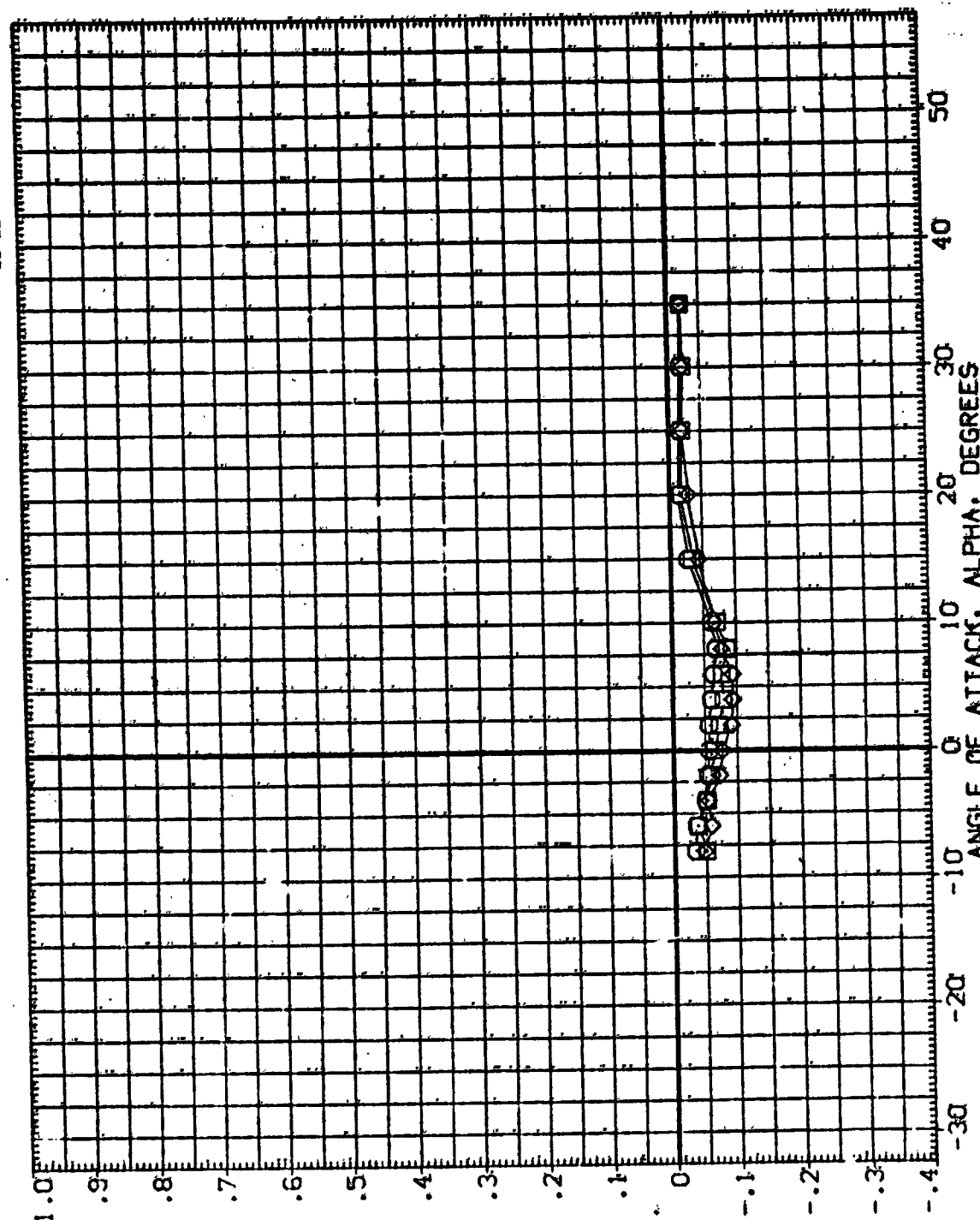


FIGURE 34. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N51

(A) MACH = 10.33

DATA SET SYMBOL: (CJA141), (CJA140), (CJA139)

CONFIGURATION DESCRIPTION: LARC CFHT 118 (MA-22), LARC CFHT 118 (MA-22), LARC CFHT 118 (MA-22)

ELEVON: .000, .000, .000

NO-JET: 4.000, 4.000, 4.000

BD/LAP: .000, .000, .000

T/OA-1: 127.700, 95.000, 47.500

REFERENCE INFORMATION: SREF 2650.0000, LREF 474.8000, BREF 936.6800, XMRP 1076.7000, YMRP .0000, ZMRP 375.0000, SCALE .0000

SO, PT: INCHES, INCHES, INCHES, INCHES, INCHES, INCHES

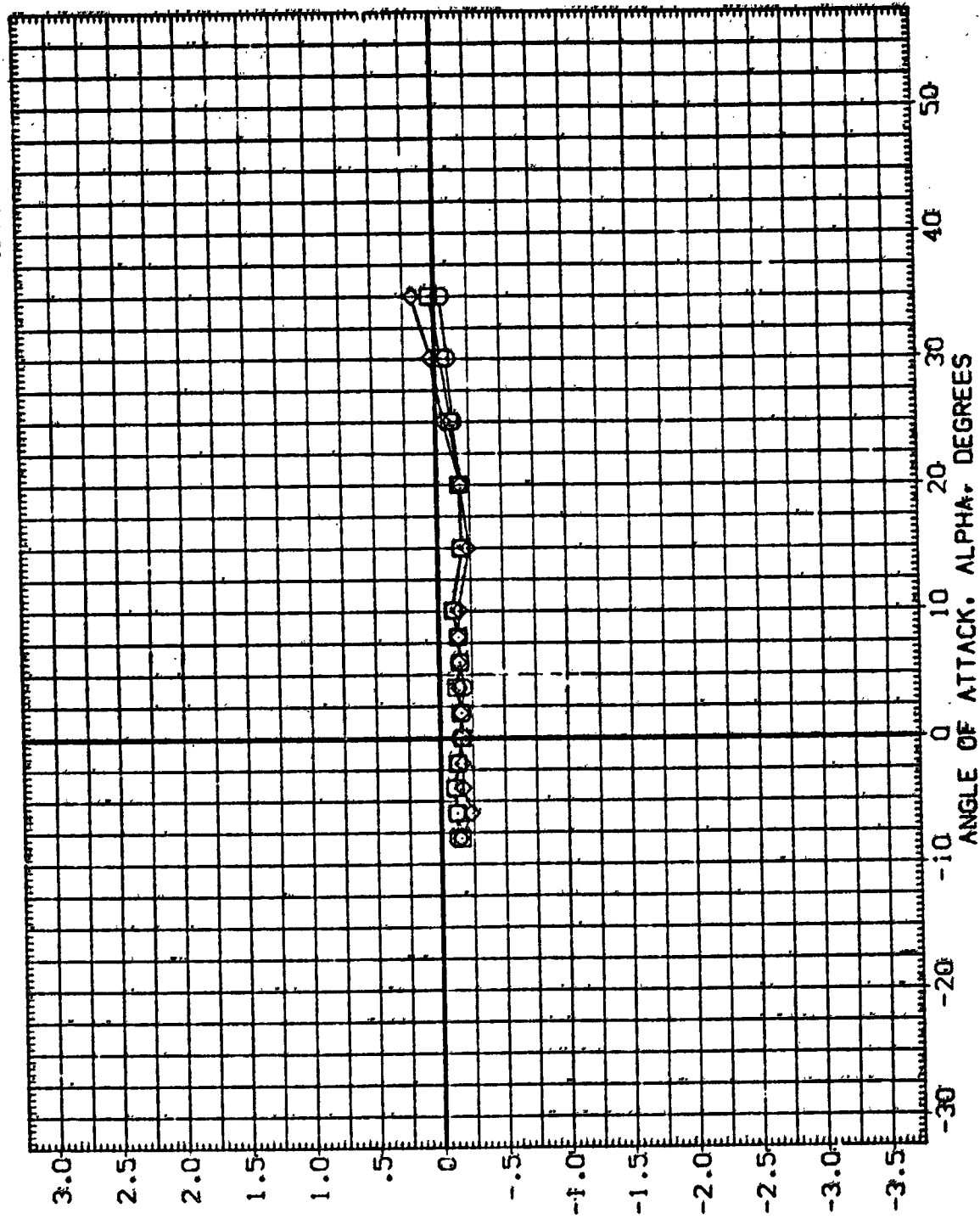


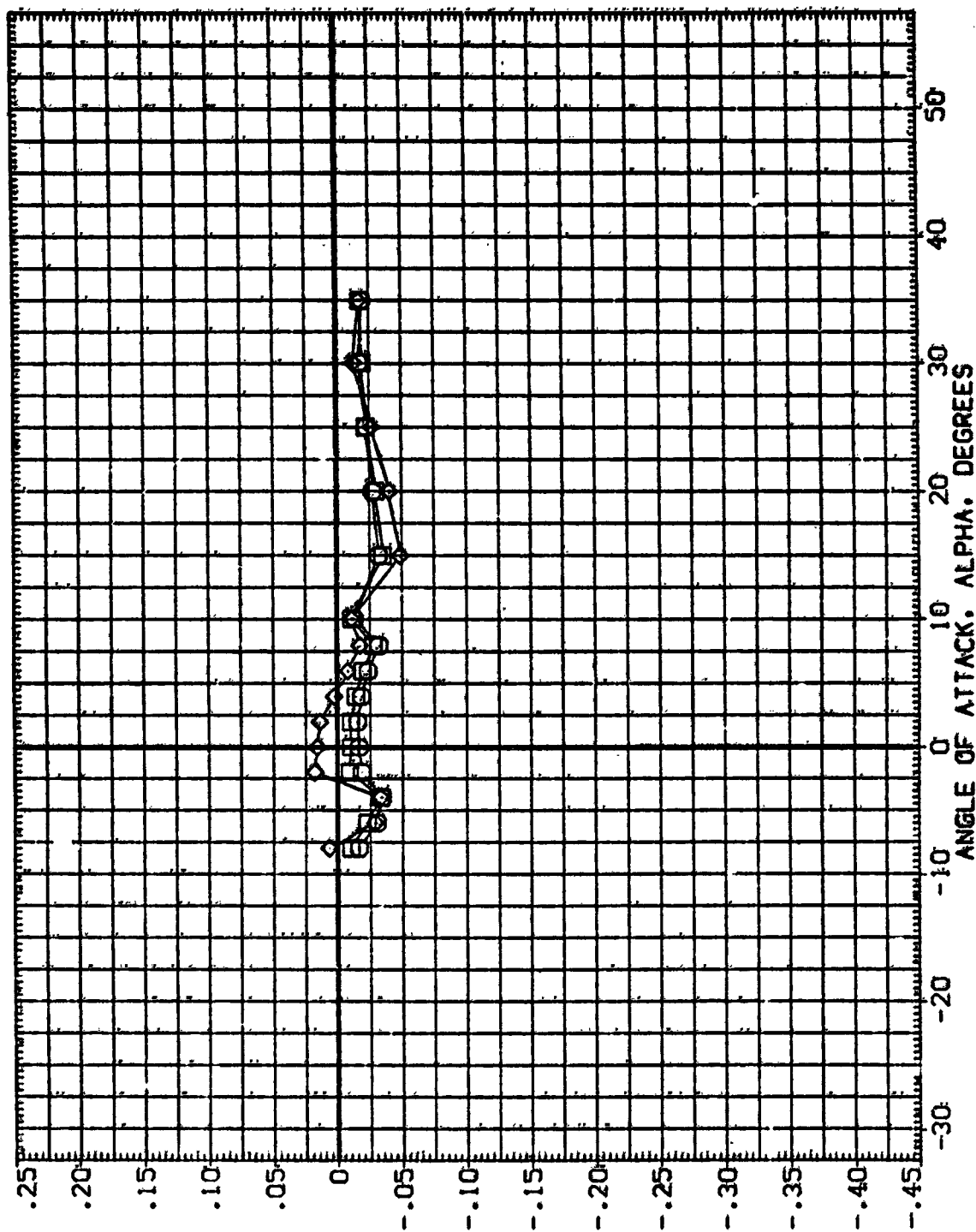
FIGURE 34. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N51

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA141) QINS1 LARC CFMT 118 (MA-22)
 (CJA148) QINS1 LARC CFMT 118 (MA-22)
 (CJA139) QINS1 LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP 1/DA-1
 .000 4.000 .000 127.700
 .000 4.000 .000 95.000
 .000 4.000 .000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1026.7000 IN. NO
 YMRP .0000 IN. NO
 ZMRP 375.0000 IN. NO
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCF

FIGURE 34. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N51

(A)MACH = 10.33

SREF
LREF
BREF
XMRP
YMRP
ZMRP
SEAL

127,700	127,700
95,000	95,000
47,500	47,500

4.000
4.000
4.000

MEMBERSHIP

INTEL 141M75-30 INTEL 17X
LARC CFHT 118 (MA-22)
LARC CFHT 118 (MA-22)
LARC CFHT 118 (MA-22)

15N1D
15N1D
15N1D

(CJA141)
(CJA140)
(CJA139)

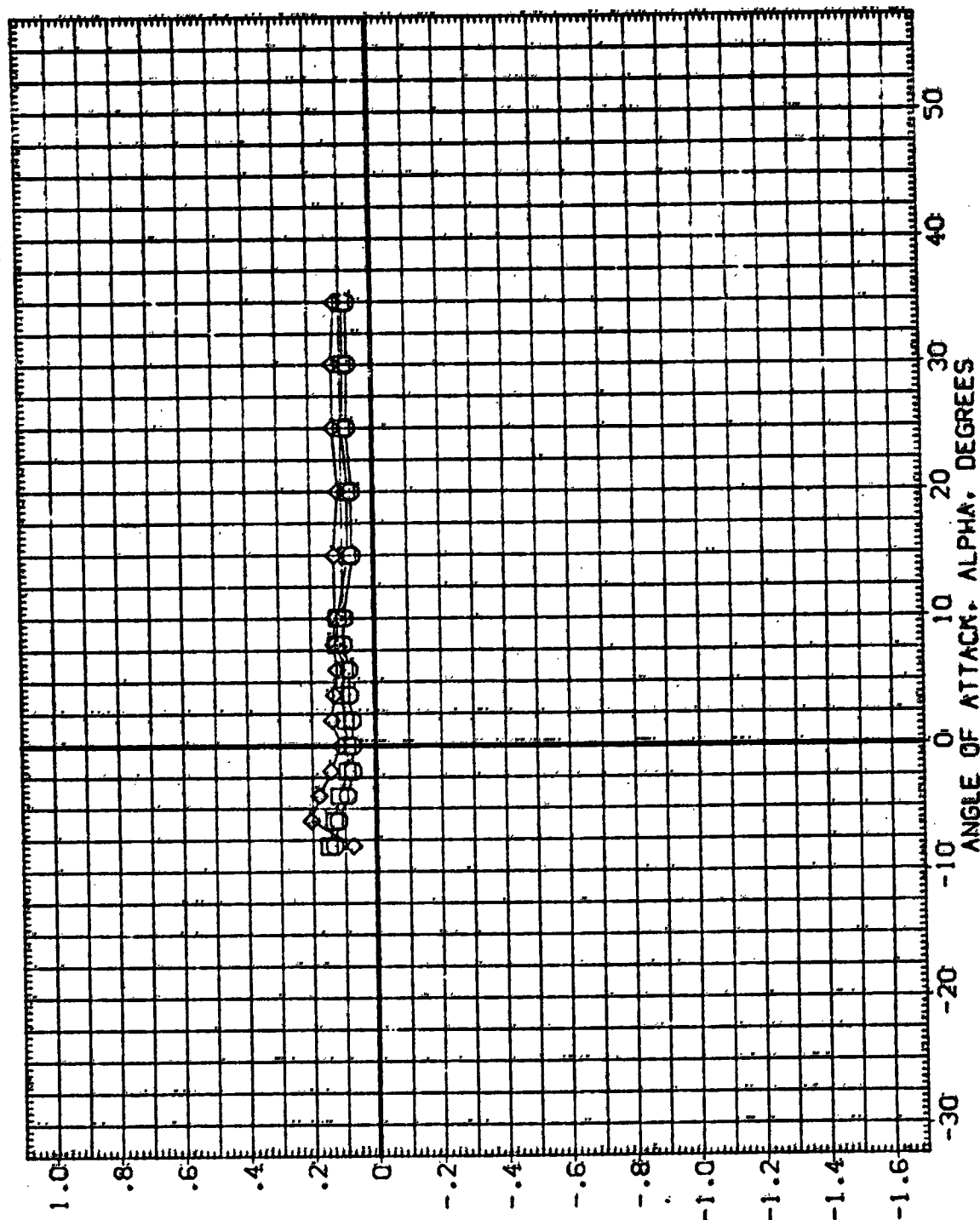


FIGURE 34. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N51

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CJA074) Q1N85 LARC CFHT 118 (MA-22)

(CJA075) Q1N85 LARC CFHT 118 (MA-22)

(CJA073) Q1N85 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP T/OA-1

.000 2.000 .000 190.000

.000 2.000 .000 95.000

.000 2.000 .000 47.500

REFERENCE INFORMATION

SREF 2690.0000 SQ. FT.

LREF 474.3000 INCHES

BREF 936.6800 INCHES

XMRP 1076.7000 IN. X0

YMRP .0000 IN. Y0

ZMRP 375.0000 IN. Z0

SCALE .0000

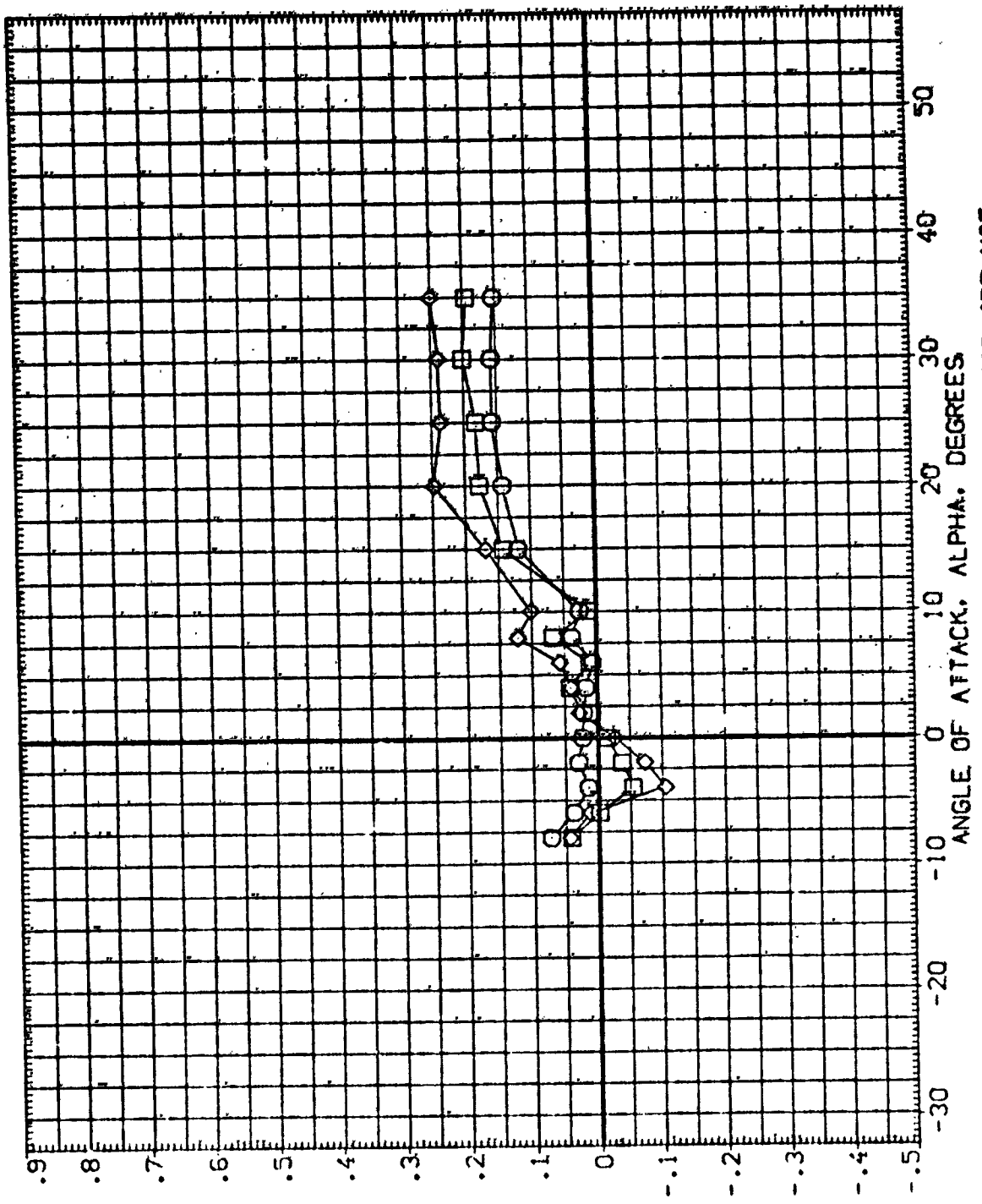


FIGURE 35. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N85

(A)MACH = 10.33

ELEVON	NO. 9ET	BDFLAP	7-0A-1	REFERENCE INFORMATION	SO. FT. INCHES	IN. 10 IN. 10	IN. 10 IN. 10	IN. 20 IN. 20
.000	2.000	.000	190.000	SREF	2690.0000			
.000	2.000	.000	95.000	LREF	474.8000			
.000	2.000	.000	47.500	BREF	936.6800			
.000	2.000	.000		YMRP	1076.7000			
				YMRP	.0000			
				ZMRP	375.0000			
				SCALE	.0100			

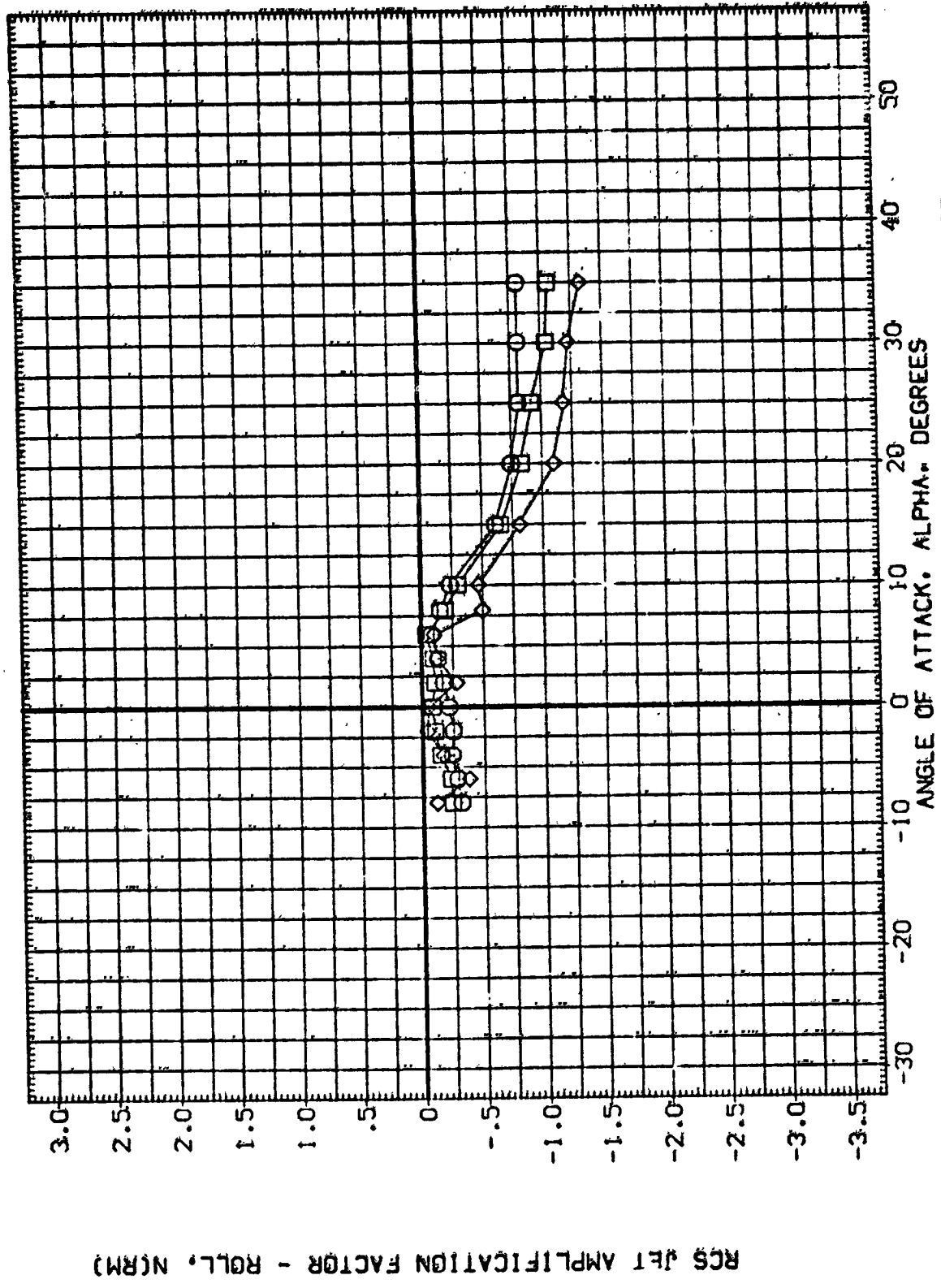


FIGURE 35. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N85

$$(A)_{MACH} = 10.33$$

REFERENCE INFORMATION

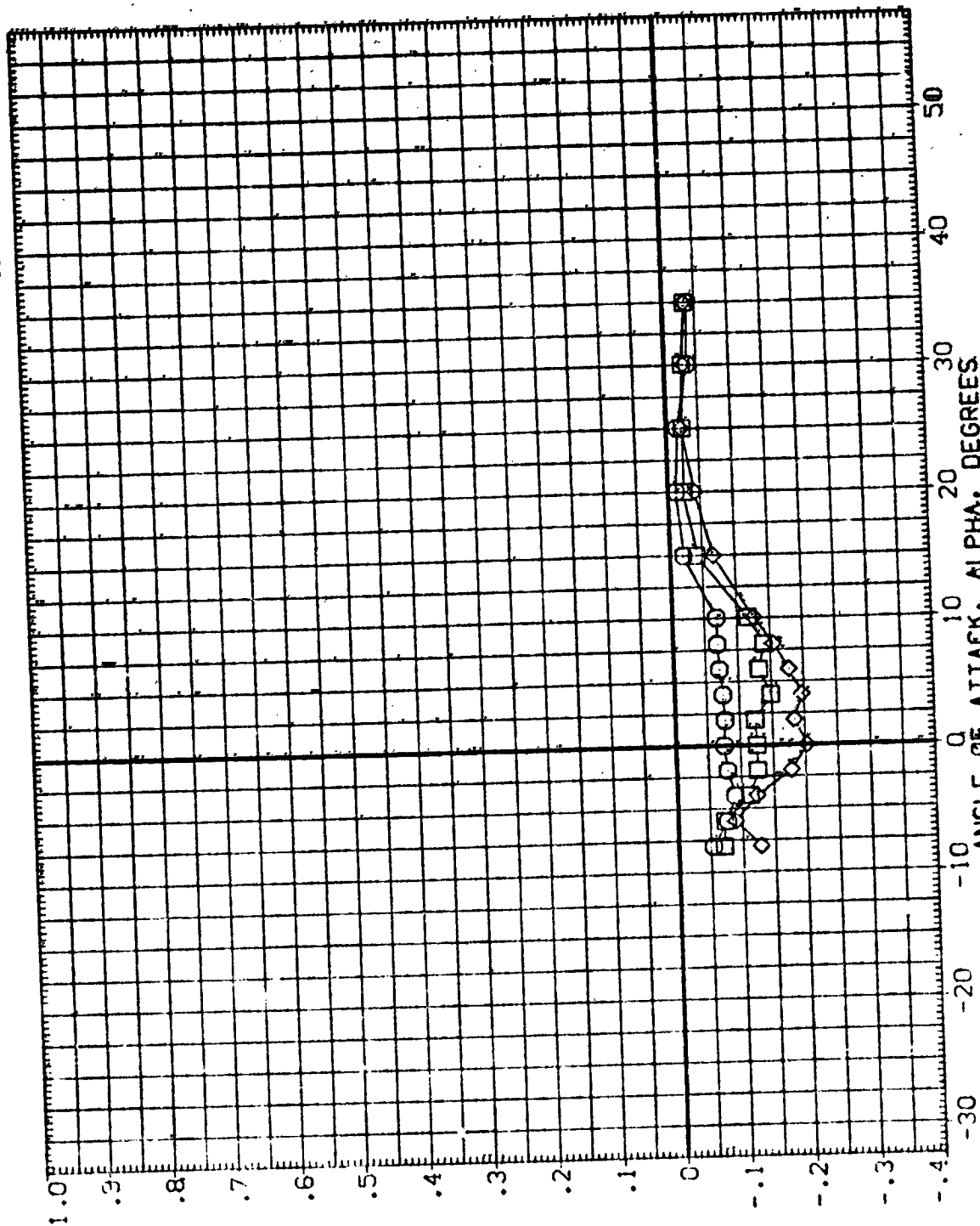
SREF	2690.0000	SR-FT
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN- X0
YMRP	375.0000	IN- Y0
ZMRP	375.0000	IN- Z0
SCALE	.0100	

ELEVON NO-JET BOFLAP T/OA-1

ELEVON	NO-JET	BOFLAP	T/OA-1
.000	2.000	.000	190.000
.000	2.000	.000	93.000
.000	2.000	.000	47.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CJA074)	01N35	LARC CFHT 118 (MA-22)
(CJA075)	01N85	LARC CFHT 118 (MA-22)
(CJA073)	01N85	LARC CFHT 118 (MA-22)



RCS JET AMPLIFICATION FACTOR - YAW, N85M

FIGURE 35. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N85

DATA SET SYMBOL: 01N85
 (CJA024)
 (CJA075)
 (CJA073)

ELEVON: 2.000
 2.000
 2.000

NO. JET: 2.000
 2.000
 2.000

CONFIGURATION DESCRIPTION:
 LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)

1/DA-1: 190.000
 95.000
 47.500

BOFLAP: .000
 .000
 .000

REFERENCE INFORMATION:
 SREF: 2690.0000
 LREF: 474.8000
 BREF: 936.6800
 XMRP: 1076.7000
 YMRP: .0000
 ZMRP: 375.0000
 SCALE: .0100

50. FT.
 INCHES
 INCHES
 IN. X10
 IN. Y10
 IN. Z10

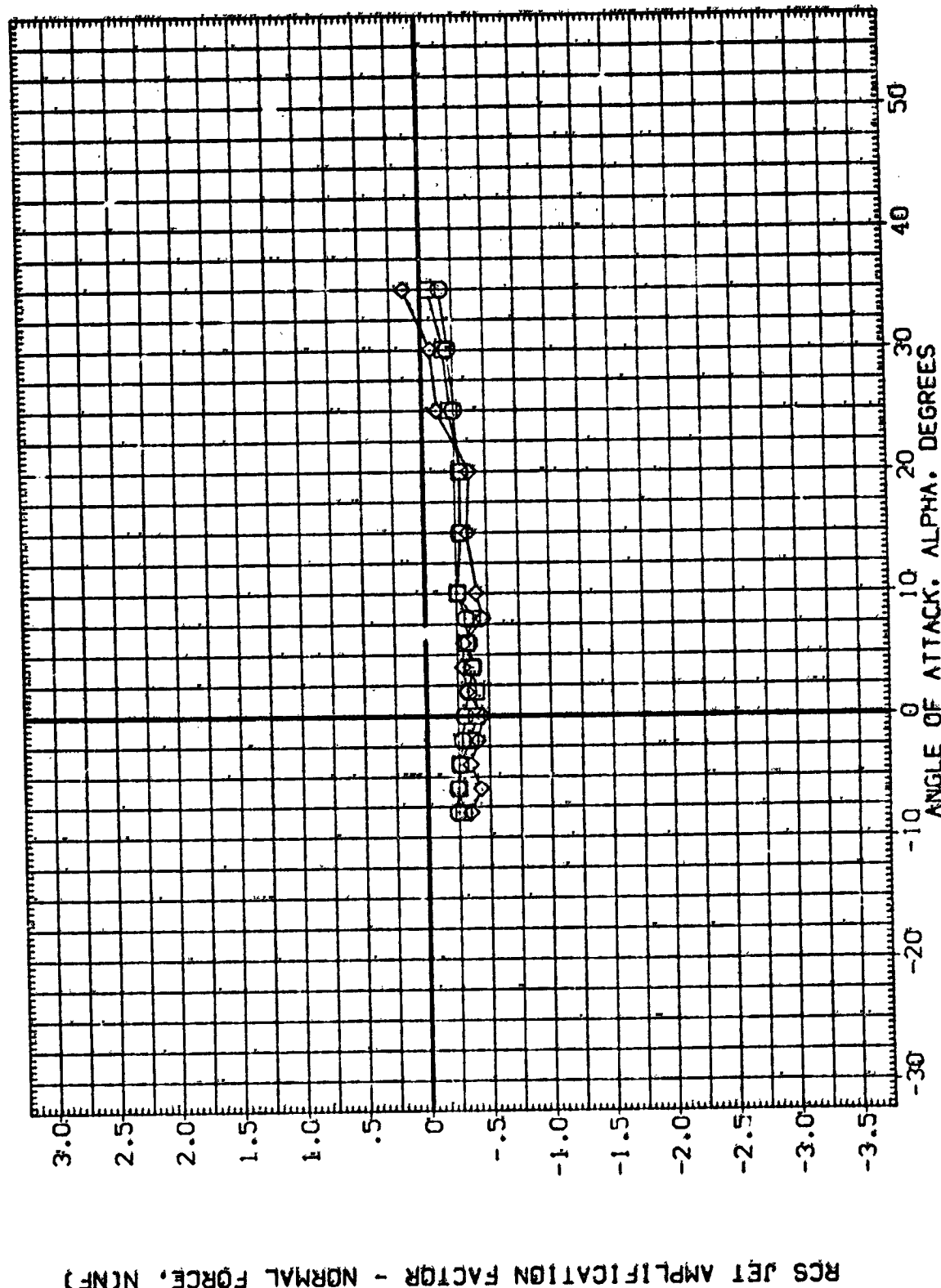


FIGURE 35. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N85

(A)MACH = 10.33

DATA SET SYMBOL
(CJA074)
(CJA375)
(CJA073)

CONFIGURATION DESCRIPTION
LARC CPHE 118 (NA-22)
LARC CPHE 118 (NA-22)
LARC CPHE 118 (NA-22)

ELEVON
.000
.000
.000

NO. JET
2.000
2.000
2.000

BOFLAP
.000
.000
.000

T/OA-1
190.800
95.000
47.500

REFERENCE INFORMATION
SREF 2690.0000 SO. FT.
LREF 474.8000 INCHES
BREF 936.8800 INCHES
XMRP 1076.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100

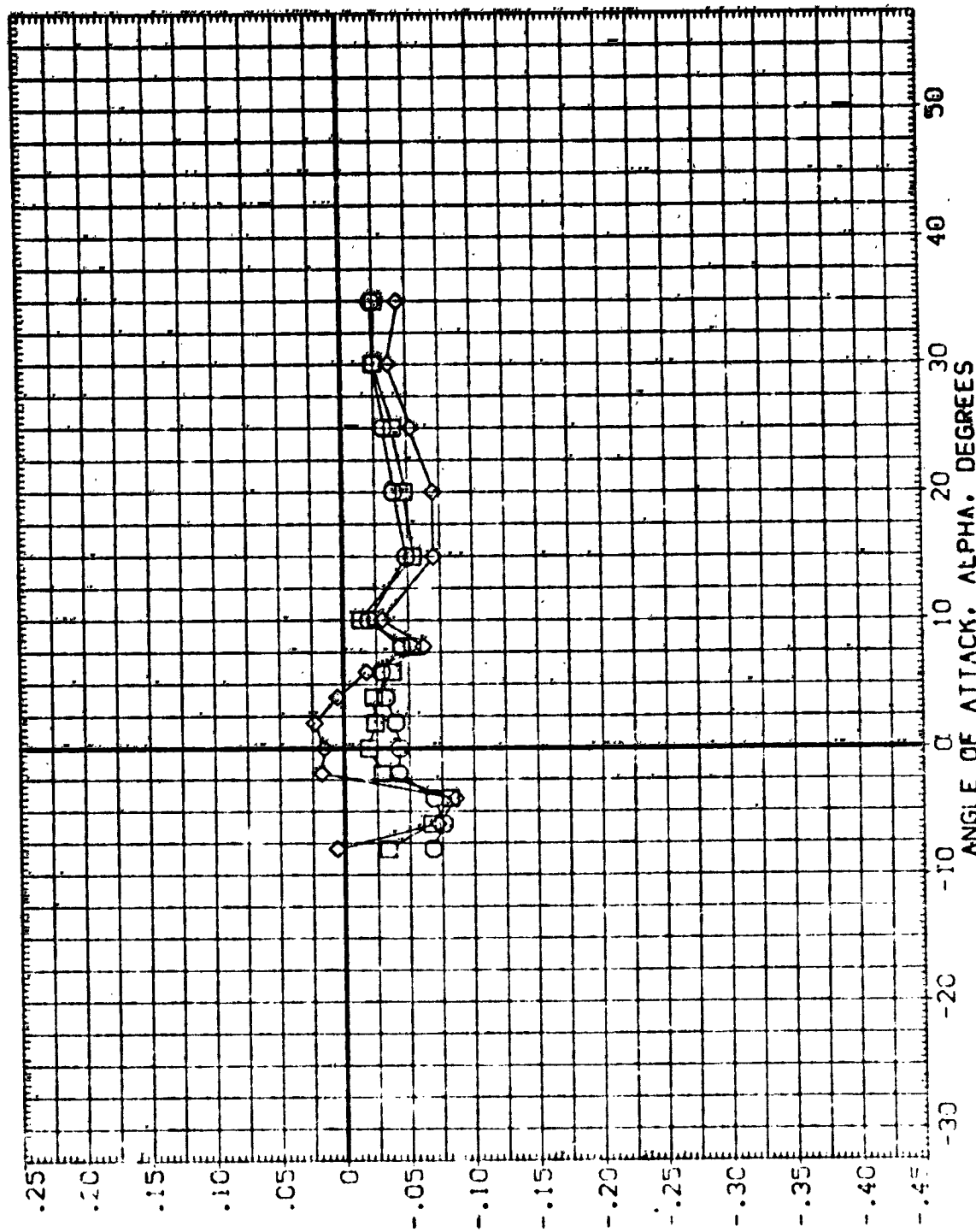


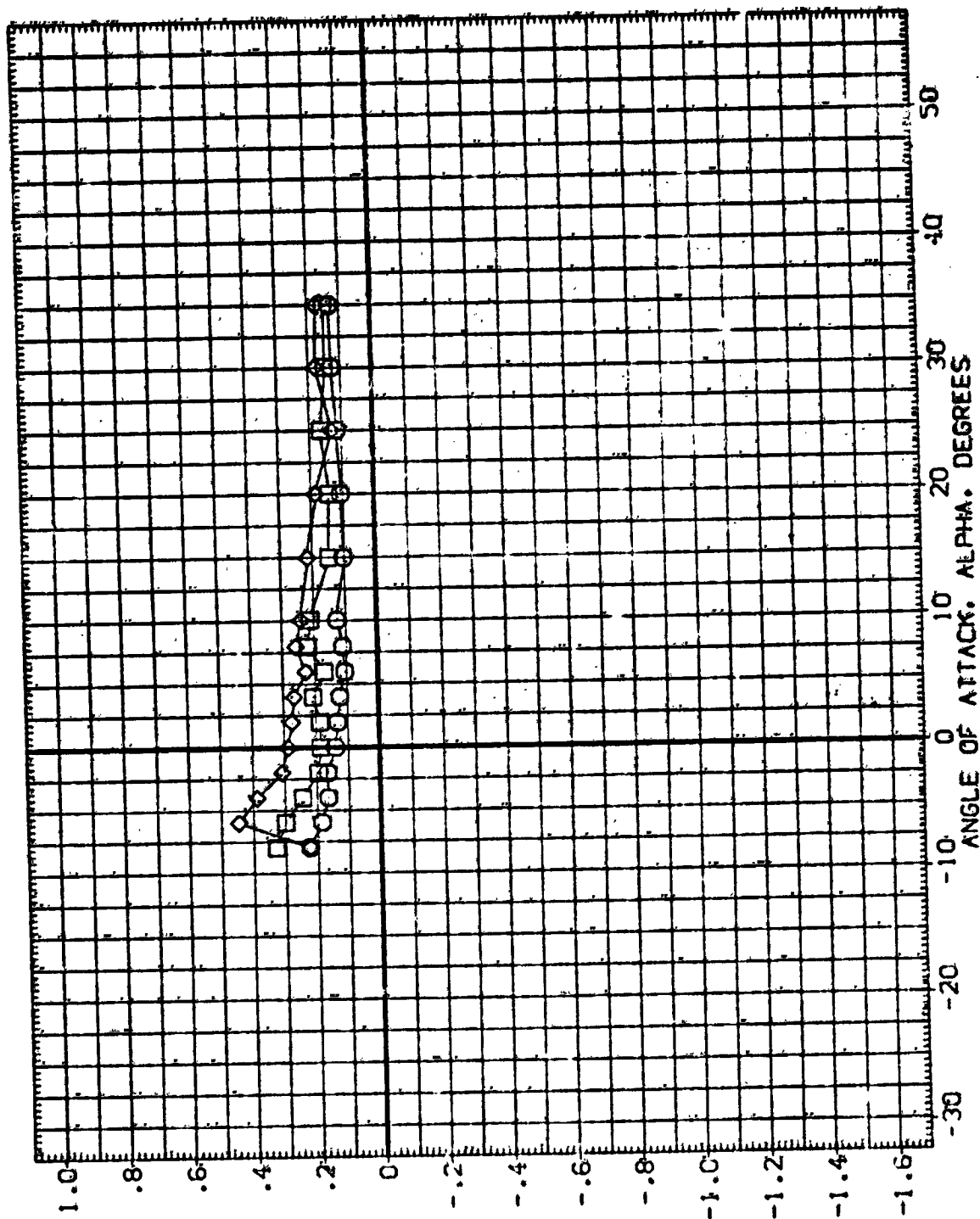
FIGURE 35. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N85

CAIMACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA874) 01N85 LARC CFMT 118 (MA-22)
 (CJA875) 01N86 LARC CFMT 118 (MA-22)
 (CJA873) 01N86 LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP 1A9A-1
 .000 2.000 .000 190.000
 .000 2.000 .000 95.000
 .000 2.000 .000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 50. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 IN. X0
 XREF 1076.7000 IN. Y0
 YREF 375.0000 IN. Z0
 ZREF .0100 SCALE



RCS JET AMPLIFICATION FACTOR - SIDE FORCE, (NSF)

FIGURE 35. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N85

(MACH = 10.33)

DATA SET SYMBOL: (CJAS72) (CJAS71) (CJAS70)

CONFIGURATION DESCRIPTION: QIN78 LARC CFMT 118 (HA-22) QIN78 LARC CFMT 118 (HA-22) QIN78 LARC CFMT 118 (HA-22)

ELEVON: .000 .000 .000

NO. JET: 1.000 1.000 1.000

BDF LAP: .000 .000 .000

T/OA-T: 190.000 95.000 47.500

REFERENCE INFORMATION: SREF 2690.0000 50. FT. LREF 474.8000 INCHES BREF 936.6800 INCHES XMRP 1076.7000 IN. X0 YMRP .0000 IN. Y0 ZMRP 375.0000 IN. Z0 SCALE .0100

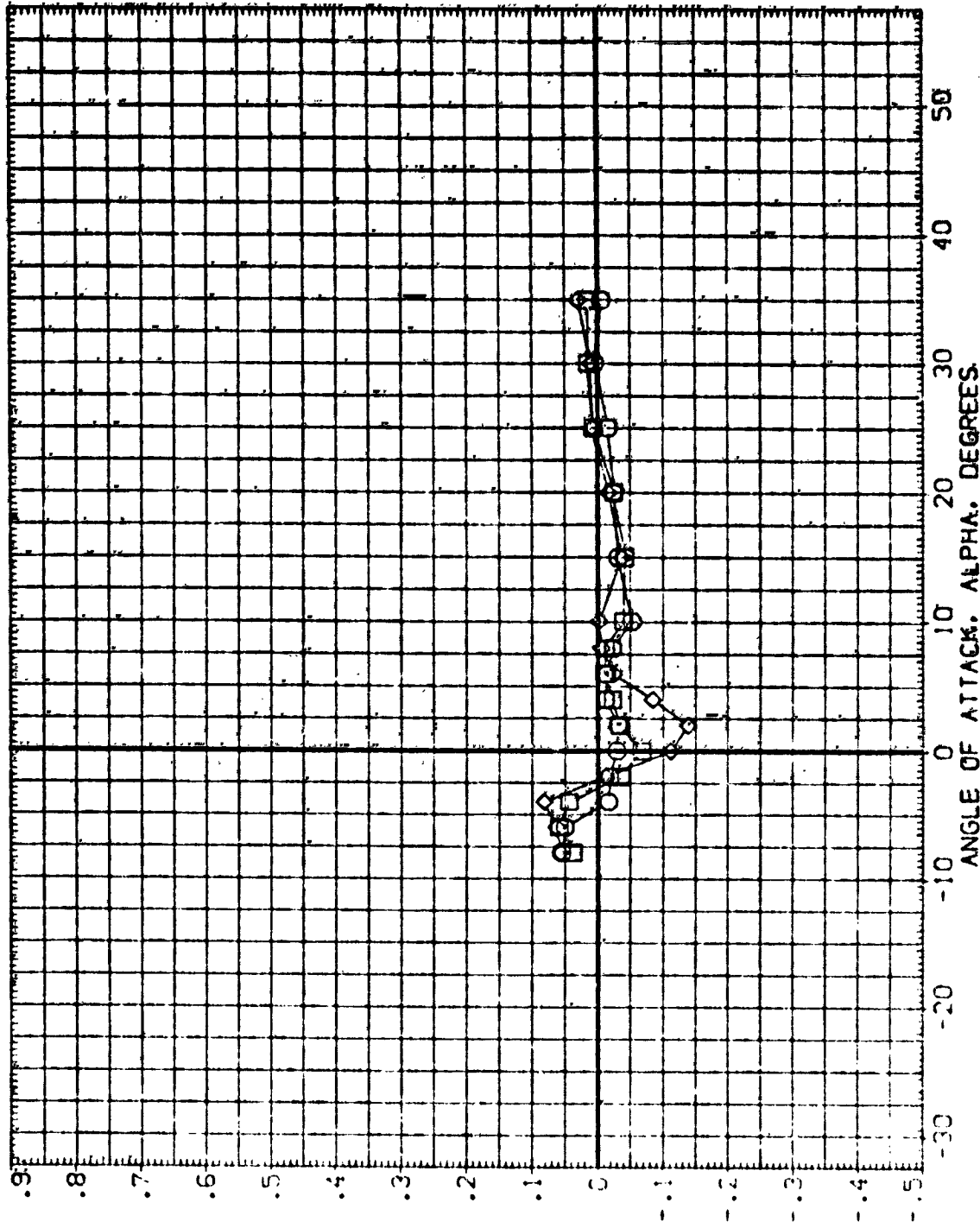
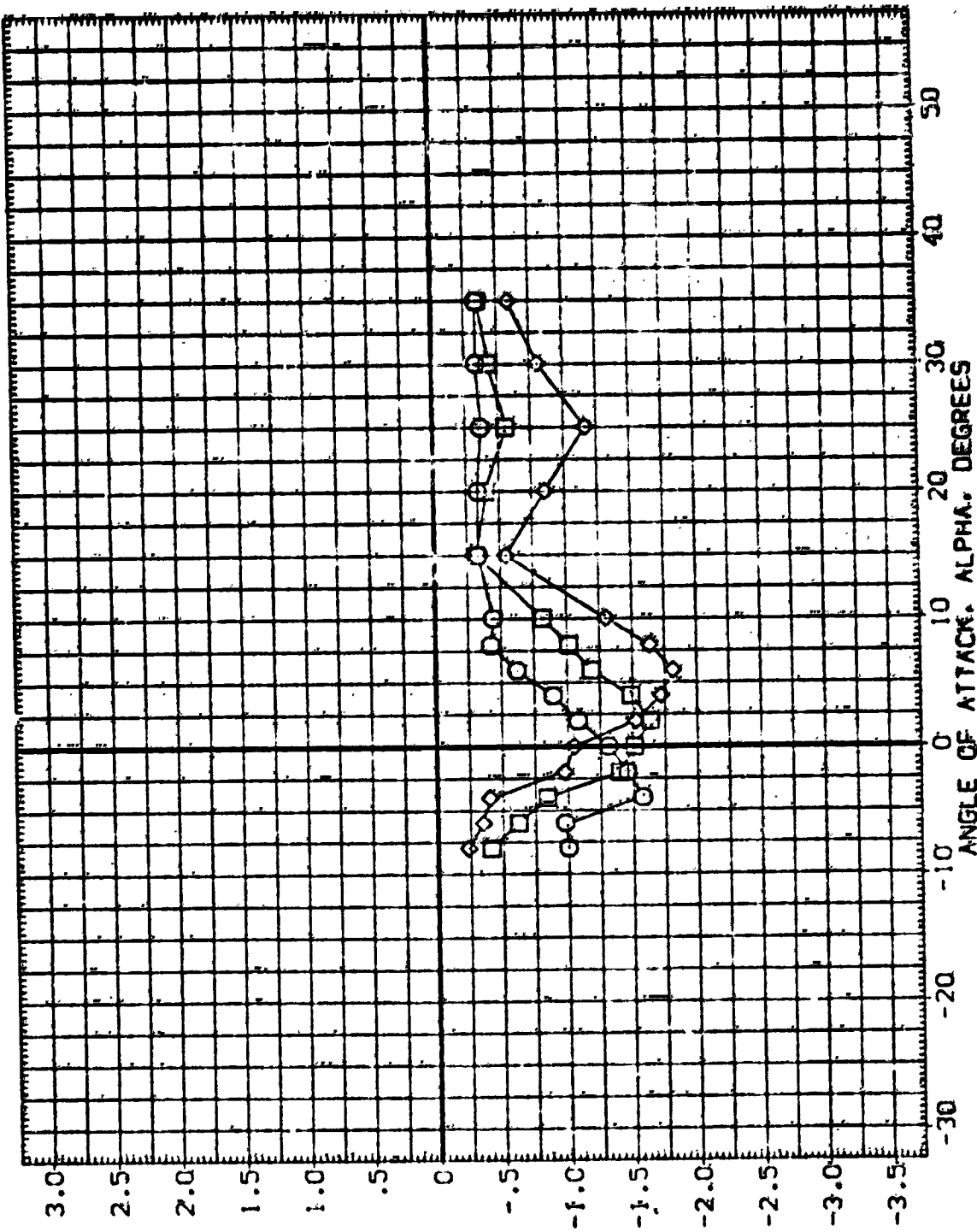


FIGURE 35. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N78

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA092) 01N78 LARE CFMT 118 (MA-22)
 (CJA071) 01N78 LARE CFMT 118 (MA-22)
 (CJA070) 01N78 LARE CFMT 118 (MA-22)

ELEVEN NO. JET BOPLAP T/2A-1
 .000 1.000 .000 130.000
 .000 .000 .000 50.000
 .000 .000 .000 47.500
 REFERENCE INFORMATION
 SREF 2630.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. RD
 YMRP .0000 IN. RD
 ZMRP 375.0000 IN. RD
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - ROLL, (NRM)

FIGURE 36. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N78

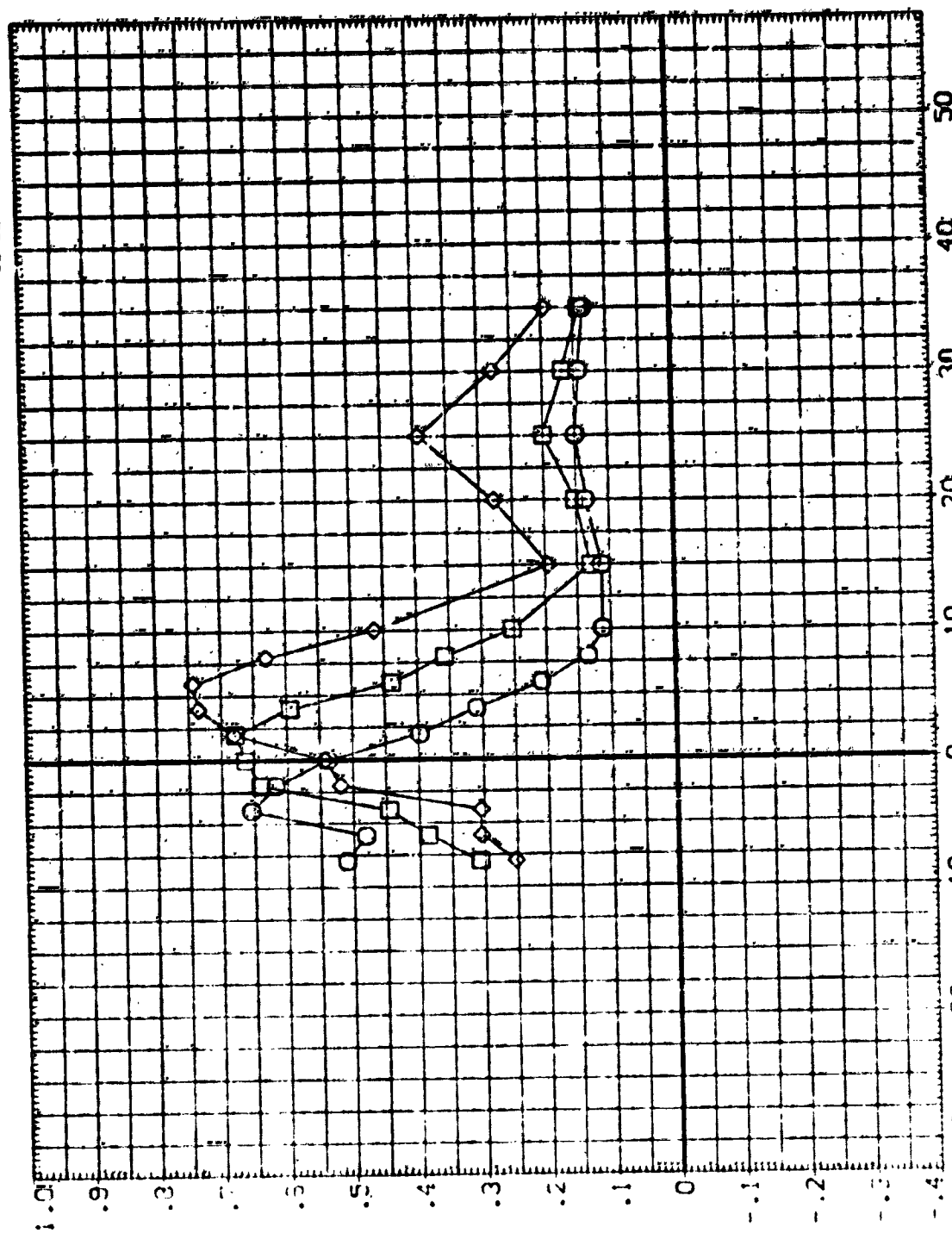
(A)MACH = 10.33

DATA SET SYMBOLS: C1N78 C1N78 C1N78 C1N78
 (C1N78) (C1N78) (C1N78) (C1N78)
 (C1N78) (C1N78) (C1N78) (C1N78)
 (C1N78) (C1N78) (C1N78) (C1N78)

CONFIGURATION DESCRIPTION
 LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)
 LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP T/OA-1
 .000 1.000 .000 130.000
 .000 1.000 .000 95.000
 .000 1.000 .000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 50.00
 LREF 474.8000 INCHES
 BREF 935.6000 INCHES
 XREF 1076.7000 INCHES
 YREF .0000 INCHES
 ZREF 375.0000 INCHES
 SCALE .0100



RG5 JET AMPLIFICATION FACTOR - YAW, NORM

FIGURE 36. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N78

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA072) 01N78 LARC CFMT 118 (MA-22)
 (CJA071) 01N78 LARC CFMT 118 (MA-22)
 (CJA070) 01N78 LARC CFMT 118 (MA-22)

ELEVON NO. JET BDFLAP T/OA-1
 .000 1.000 .000 190.000
 .000 1.000 .000 95.000
 .000 1.000 .000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 50. FT.
 LREF 474.8000 INCHES
 BREF 536.6800 INCHES
 XREF 1076.7000 IN. X0
 YREF .0000 IN. Y0
 ZREF 375.2000 IN. Z0
 SCALE .0100

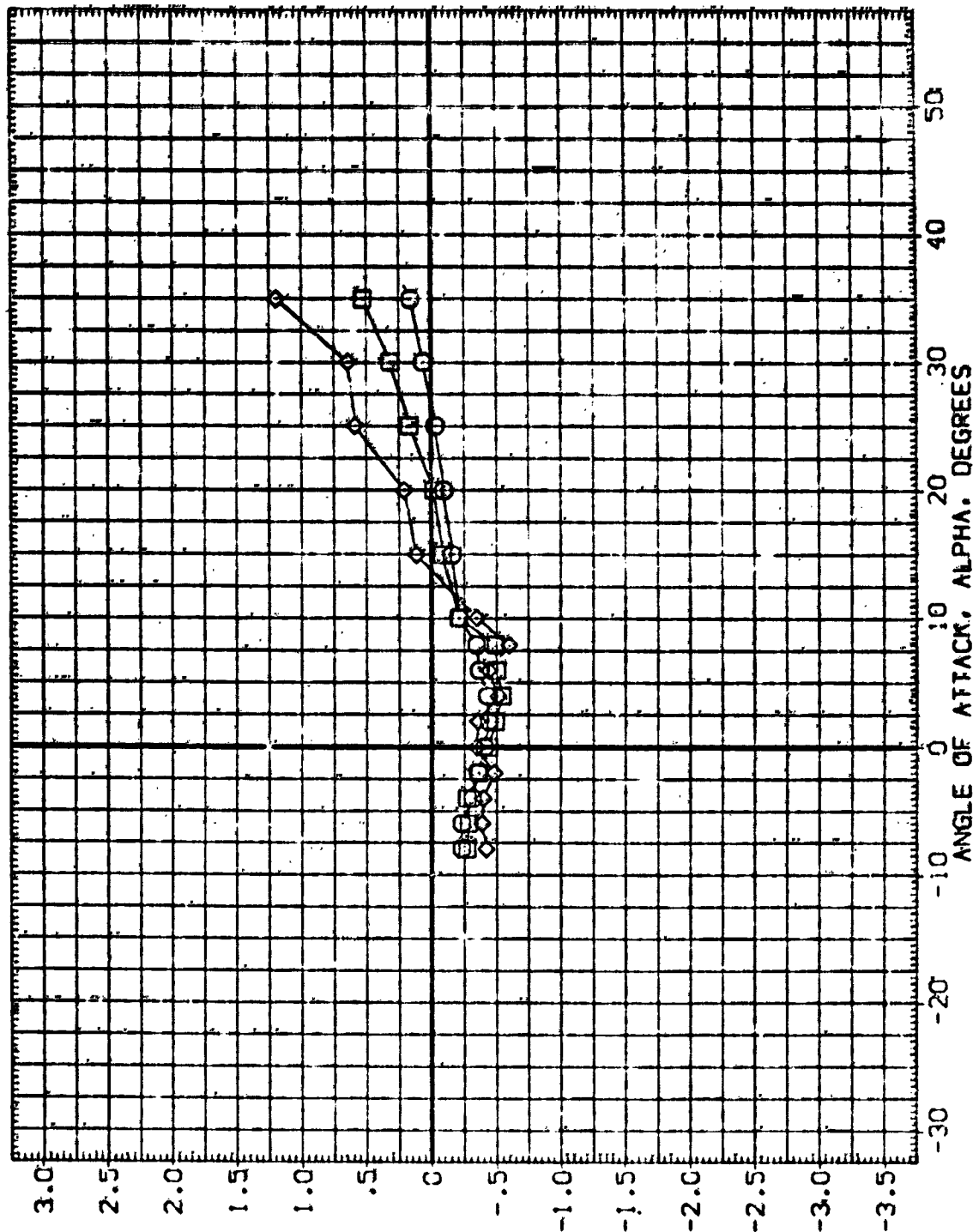
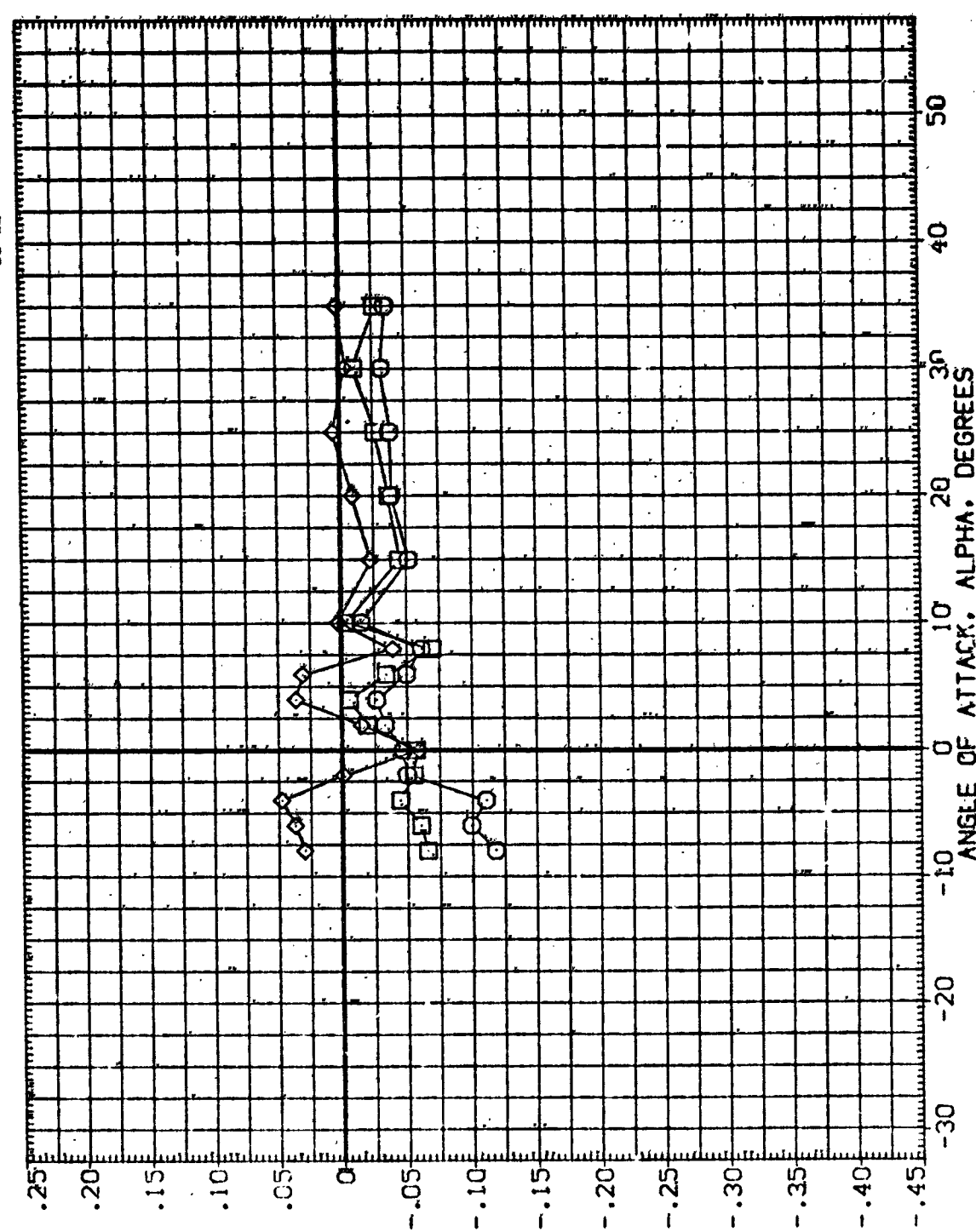


FIGURE 36. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N78

(AJMACH = 10.33)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	T/OA-1	REFERENCE INFORMATION
(CJAG72)	LARC CFHT 118 (MA-22)	.000	1.000	.000	190.000	SREF 2690.0000
(CJAG71)	LARC CFHT 118 (MA-22)	.000	1.000	.000	95.000	LREF 474.8000
(CJAG70)	LARC CFHT 118 (MA-22)	.000	1.000	.000	47.500	BREF 936.6800
						XMRP 1076.7000
						YMRP .0000
						ZMRP 375.0000
						SCALE .0000



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCF

FIGURE 36. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N78

(M)MACH = 10.33

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, N(SF)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BD FLAP	1/0A-1	REFERENCE IN-UNIT	50 FT.
(CJA072)	GIN78 LARC CFHT 118 (NA-22)	.000	1.000	.000	190.000	SREF	INCHES
(CJA071)	GIN78 LARC CFHT 118 (NA-22)	.000	1.000	.000	95.000	LREF	INCHES
(CJA070)	GIN78 LARC CFHT 118 (NA-22)	.000	1.000	.000	47.500	BREF	IN. X0
						YMRP	IN. Y0
						ZMRP	IN. Z0
						SCALE	.0100

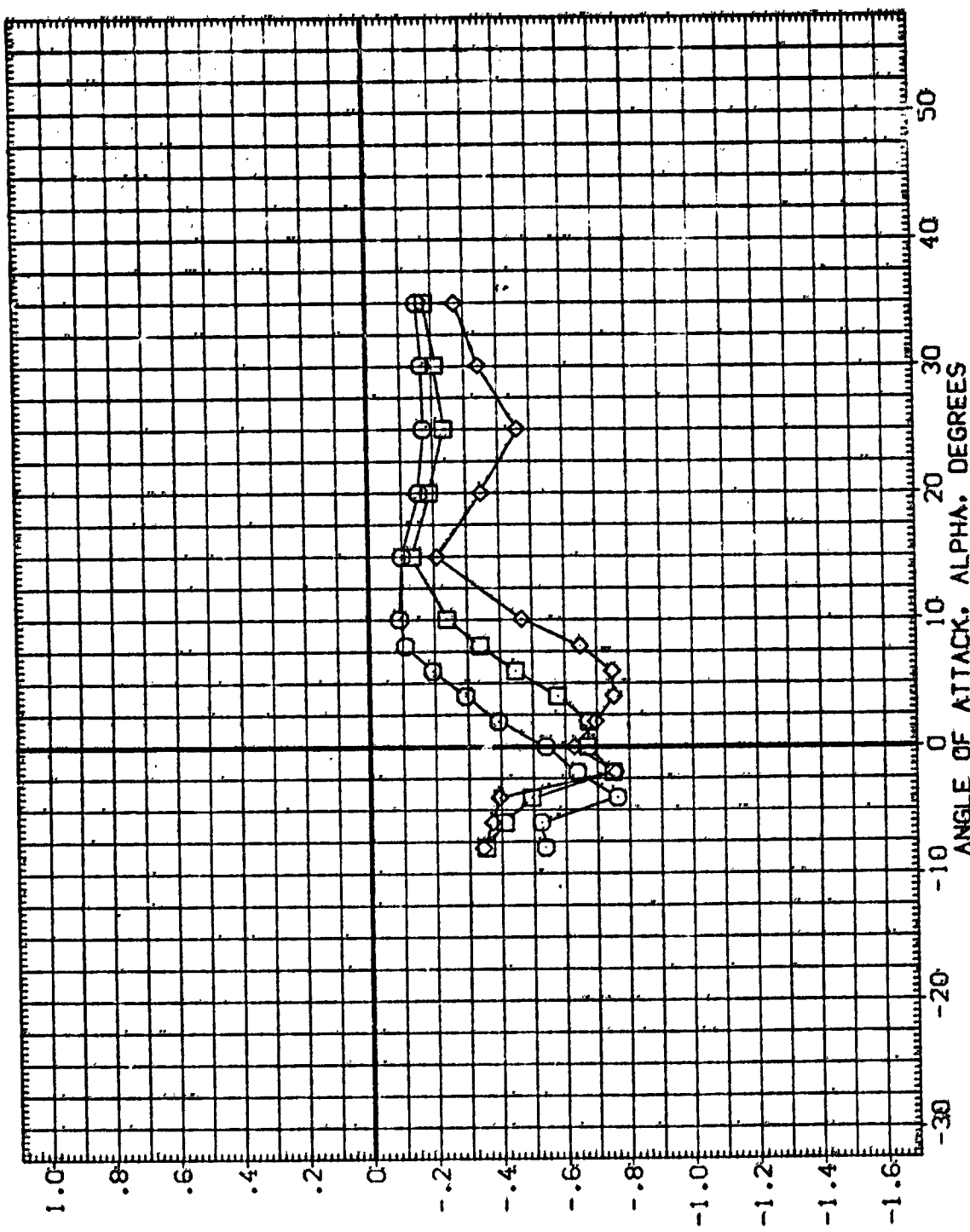


FIGURE 36. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N78

CAJ MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	T/OA-1	REFERENCE INFORMATION
(CJA165)	Q1N52 LARC CFHT 118 (NA-22)	.000	2.000	.000	190.000	SREF 2690.0000
(CJA165)	Q1N52 LARC CFHT 118 (NA-23)	.000	2.000	.000	95.000	LREF 474.8000
(CJA164)	Q1N52 LARC CFHT 118 (NA-22)	.000	2.000	.000	47.500	BREF 936.6800
						XMRP 1076.7000
						YMRP 375.0000
						ZMRP 375.0000
						SCALE .0100

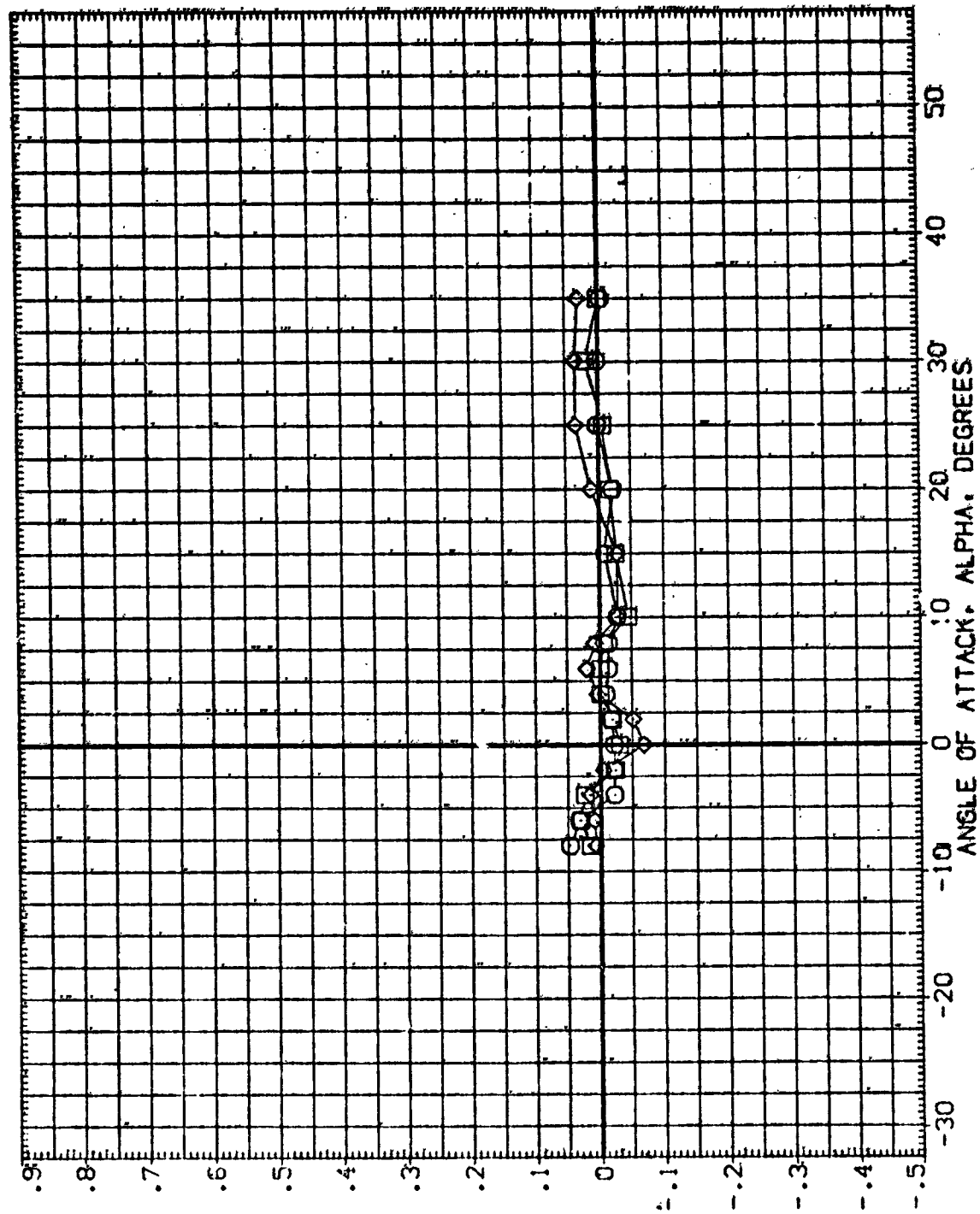


FIGURE 37. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N52

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA165) QIN52 LARC CFHT 118 (MA-22)
 (CJA165) QIN52 LARC CFHT 118 (MA-22)
 (CJA165) QIN52 LARC CFHT 118 (MA-22)

ELEVATION NO. JET WULAN FUDGE
 .000 2.000 .000 190.000
 .000 2.000 .000 95.000
 .000 2.000 .000 47.500

REPERCUSSOR NO. JET WULAN FUDGE
 .000 2.000 .000 190.000
 .000 2.000 .000 95.000
 .000 2.000 .000 47.500

REPERCUSSOR NO. JET WULAN FUDGE
 .000 2.000 .000 190.000
 .000 2.000 .000 95.000
 .000 2.000 .000 47.500

REPERCUSSOR NO. JET WULAN FUDGE
 .000 2.000 .000 190.000
 .000 2.000 .000 95.000
 .000 2.000 .000 47.500

RCS JET AMPLIFICATION FACTOR - ROLL, N(RM)

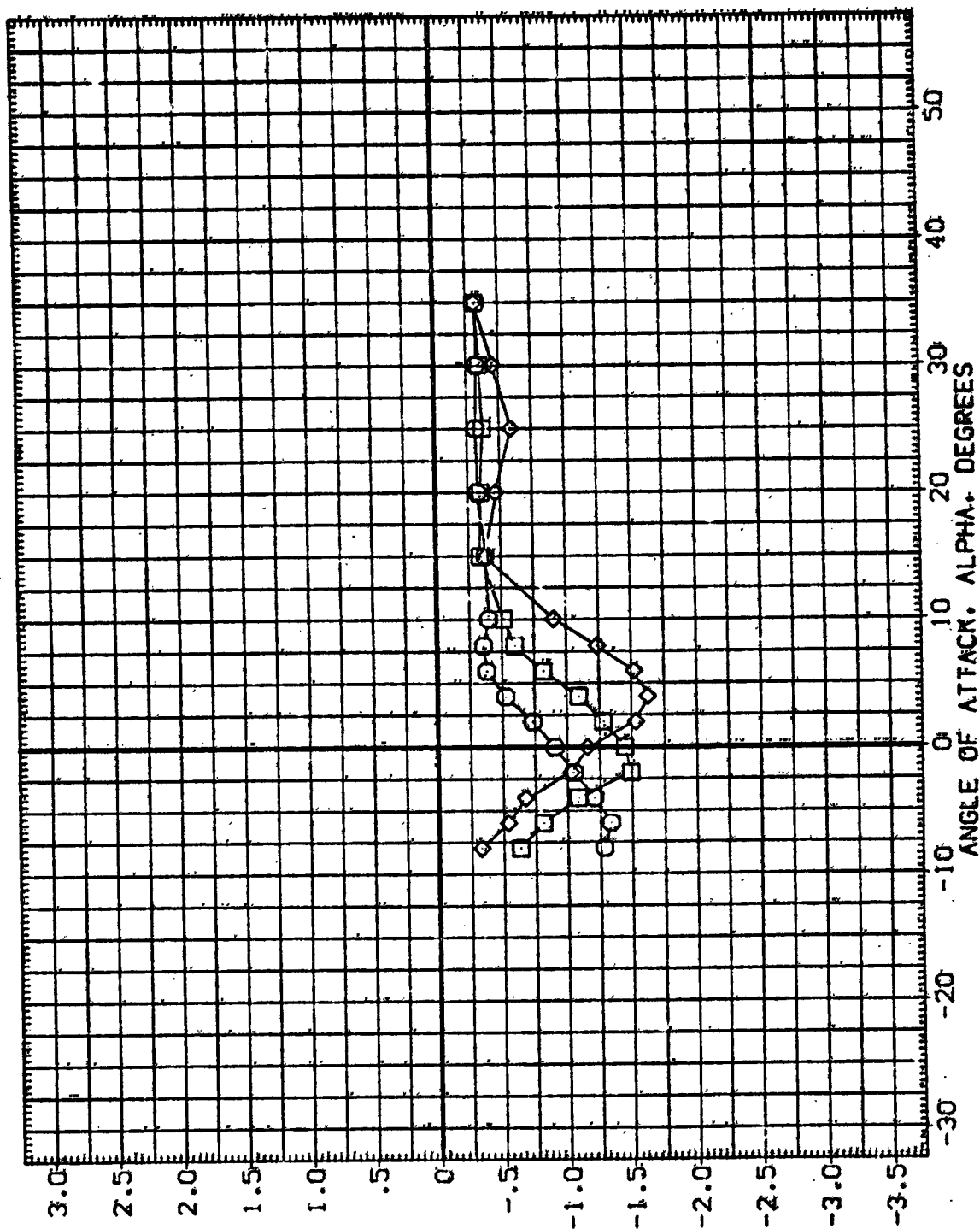


FIGURE 37. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N52

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	T/OA-1	REFERENCE INFORMATION
(CJA166)	LARC CFMT 118 (MA-22)	.000	2.000	.000	190.000	SREF 2690.0000
(CJA165)	LARC CFMT 118 (MA-22)	.000	2.000	.000	95.000	LREF 474.8000
(CJA164)	LARC CFMT 118 (MA-22)	.000	2.000	.000	47.500	BREF 936.6800
						XMRP 1076.7000
						YMRP .0000
						ZMRP 375.0000
						SCALE .0100

RC6 JET AMPLIFICATION FACTOR - YAW, NCM)

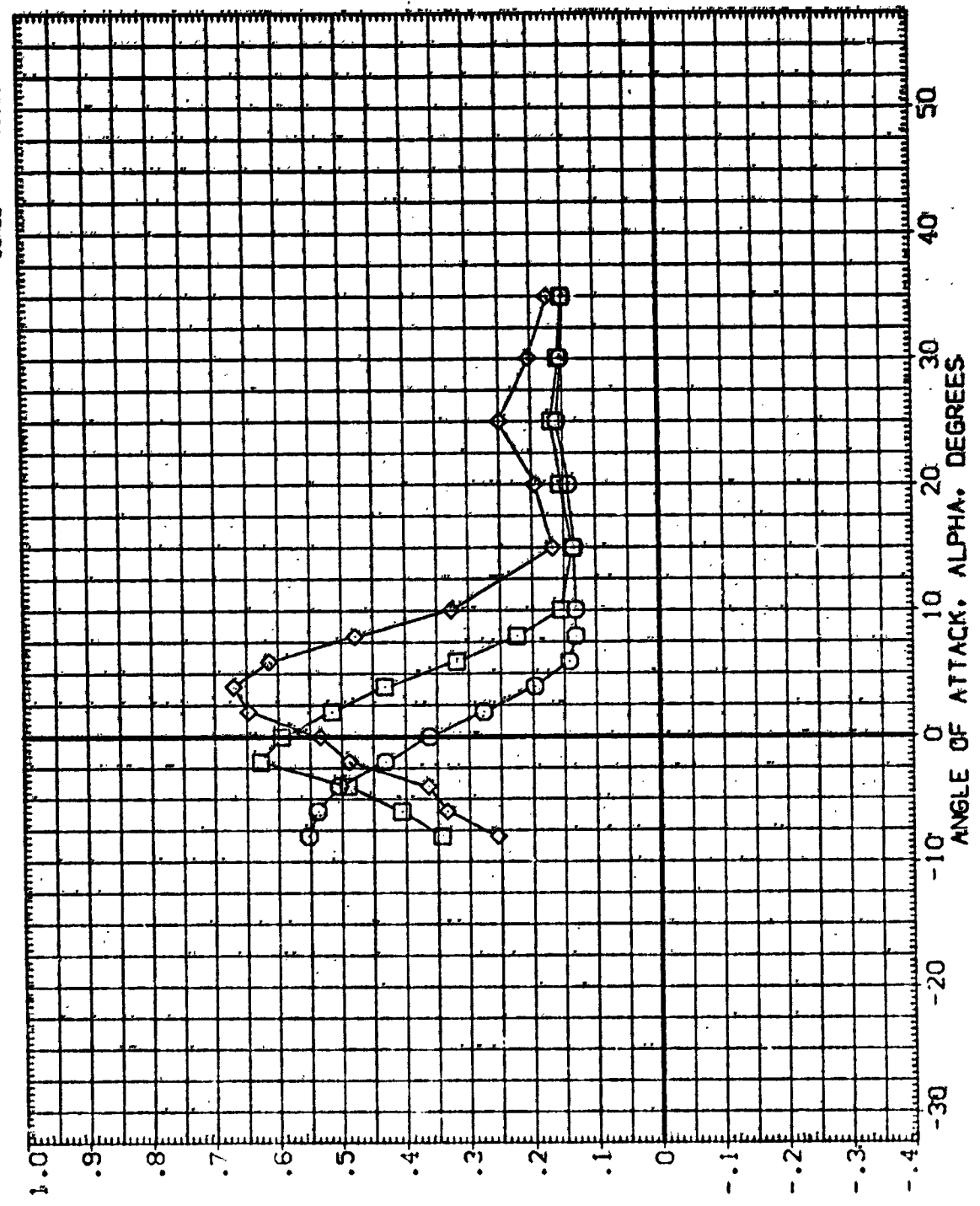


FIGURE 37. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N52

(A) MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA166) QINSZ LARC CFMT 118 (MA-22)
 (CJA165) QINSZ LARC CFMT 118 (MA-22)
 (CJA164) QINSZ LARC CFMT 118 (MA-22)

ELEVON .000 .000 .000
 NE-JET 2.000 2.000 2.000
 BOFLAP .000 .000 .000
 T/OA-1 190.000 190.000 190.000
 REFERENCE INFORMATION
 SREF 2690.0000 SQ.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

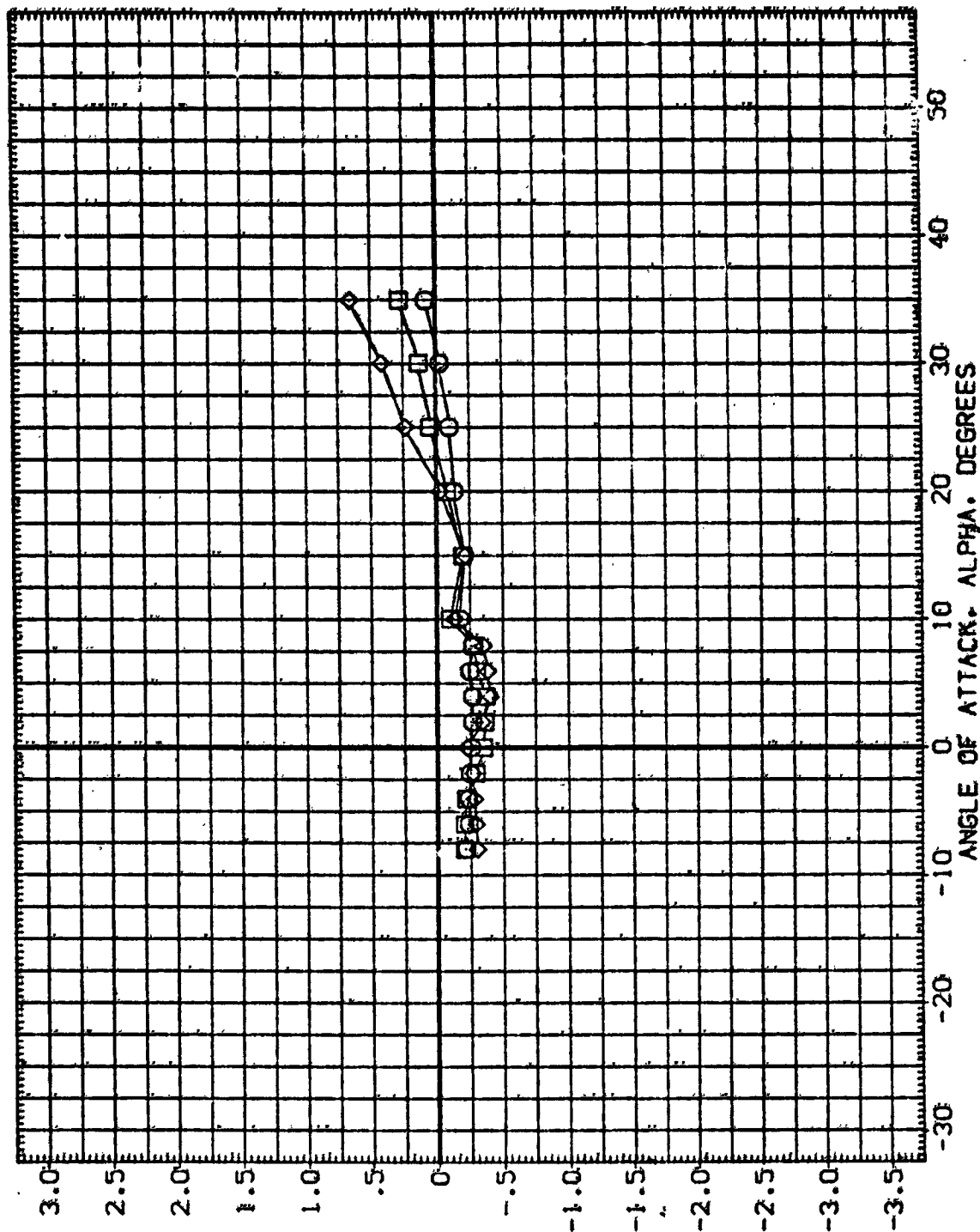


FIGURE 37. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N52

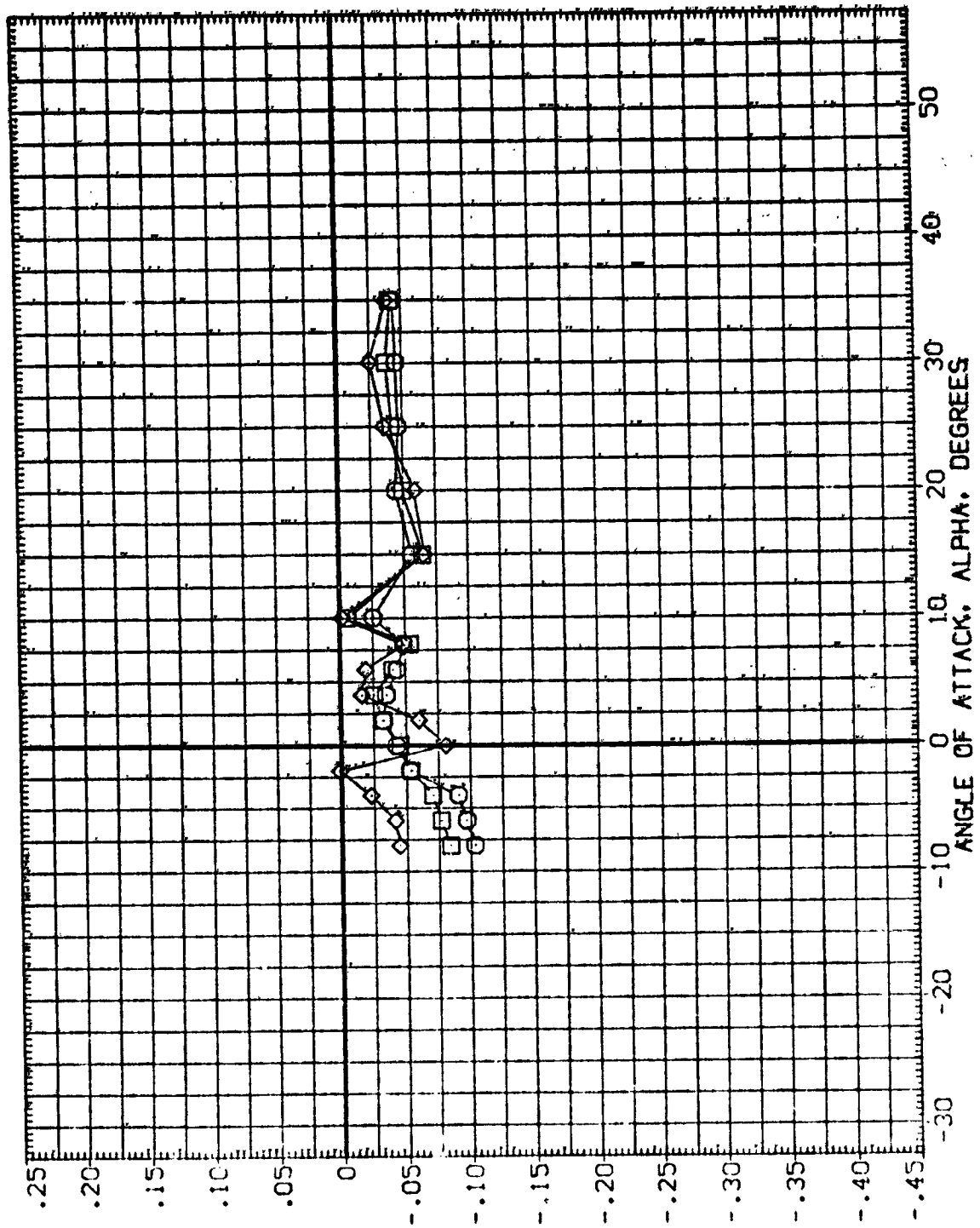
(A)MACH = 10.33

DATA SET SYMBOL
(CJA166)
(CJA165)
(CJA164)

ELEVON NO. JET BOFLAP T/OA-1
.000 2.000
.000 2.000
.000 2.000

CONFIGURATION DESCRIPTION
Q1N52 LARC CFMT 118 (MA-22)
Q1N52 LARC CFMT 118 (MA-22)
Q1N52 LARC CFMT 118 (MA-22)

REFERENCE INFORMATION
SREF 2690.0000 SOL.FT.
LREF 474.8200 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0800 IN. Z0
SCALE .0108



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCAF

FIGURE 37. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N52

CAO NACH = 10.23

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA166) OINSZ LARC CFMT 118 (MA-22)
 (CJA165) OINSZ LARC CFMT 118 (MA-22)
 (CJA164) OINSZ LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP T/QA-1
 .008 2.000 .000 190.000
 .000 2.000 .000 55.980
 .000 2.000 .000 47.590

REFERENCE INFORMATION
 SREF 2690.0800 SQ-FT
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - SIDE FORCE, NCSF

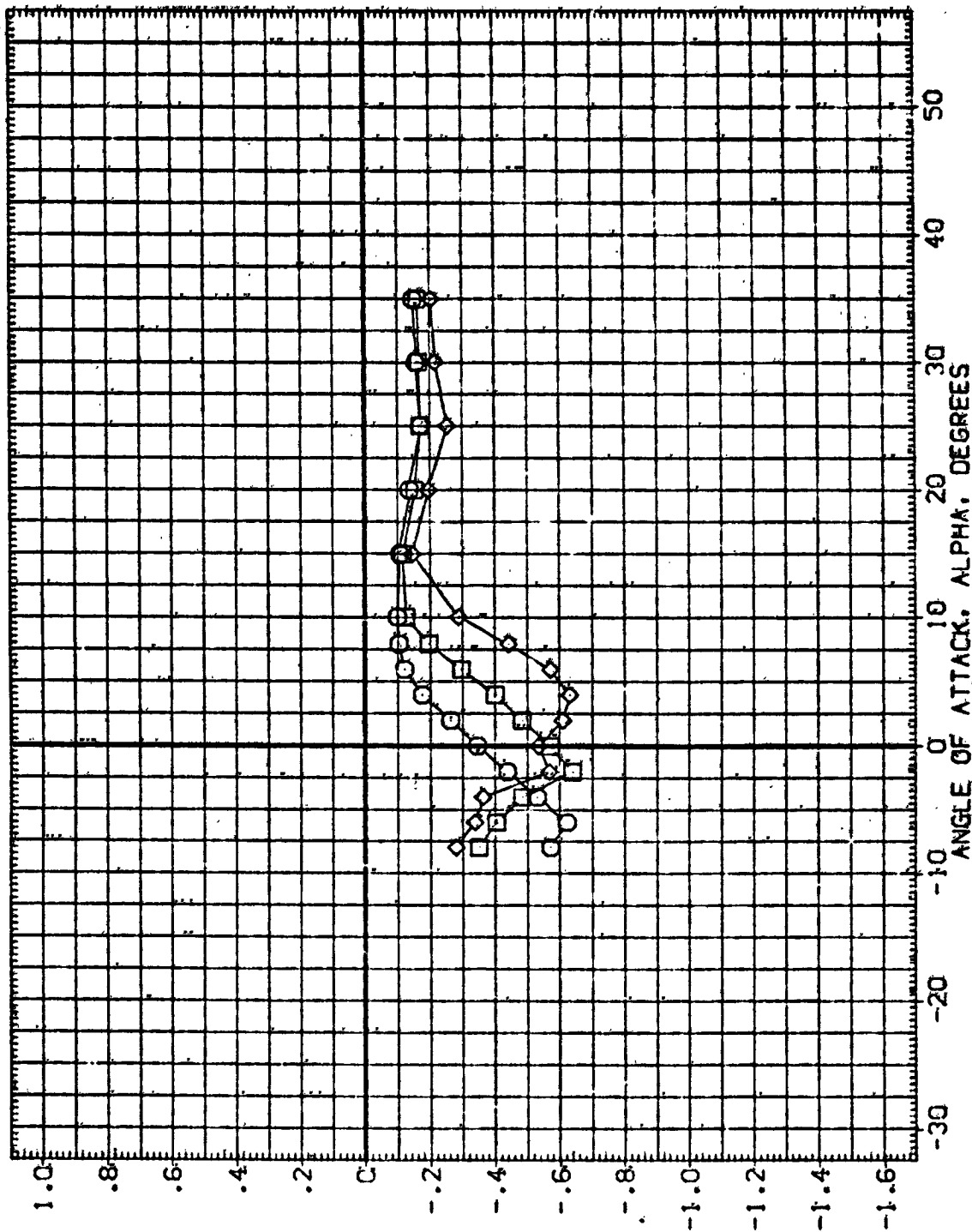


FIGURE 37. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N52

(A)MACH = 10.33

DATA SET SYMBOL
 (CJA169)
 (CJA168)
 (CJA167)

CONFIGURATION DESCRIPTION
 QINBZ LARC CMT 118 (MA-22)
 QINBZ LARC CMT 118 (MA-22)
 QINBZ LARC CMT 118 (MA-22)

ELEVON NO. JET BOFLAP T/OA-1
 .000 3.000 .100 190.000
 .000 3.000 .000 95.000
 .000 3.000 .000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 938.8800 INCHES
 XMRP 1076.7800 IN. X
 YMRP .0000 IN. Y
 ZMRP 375.0000 IN. Z
 SCALE .0100

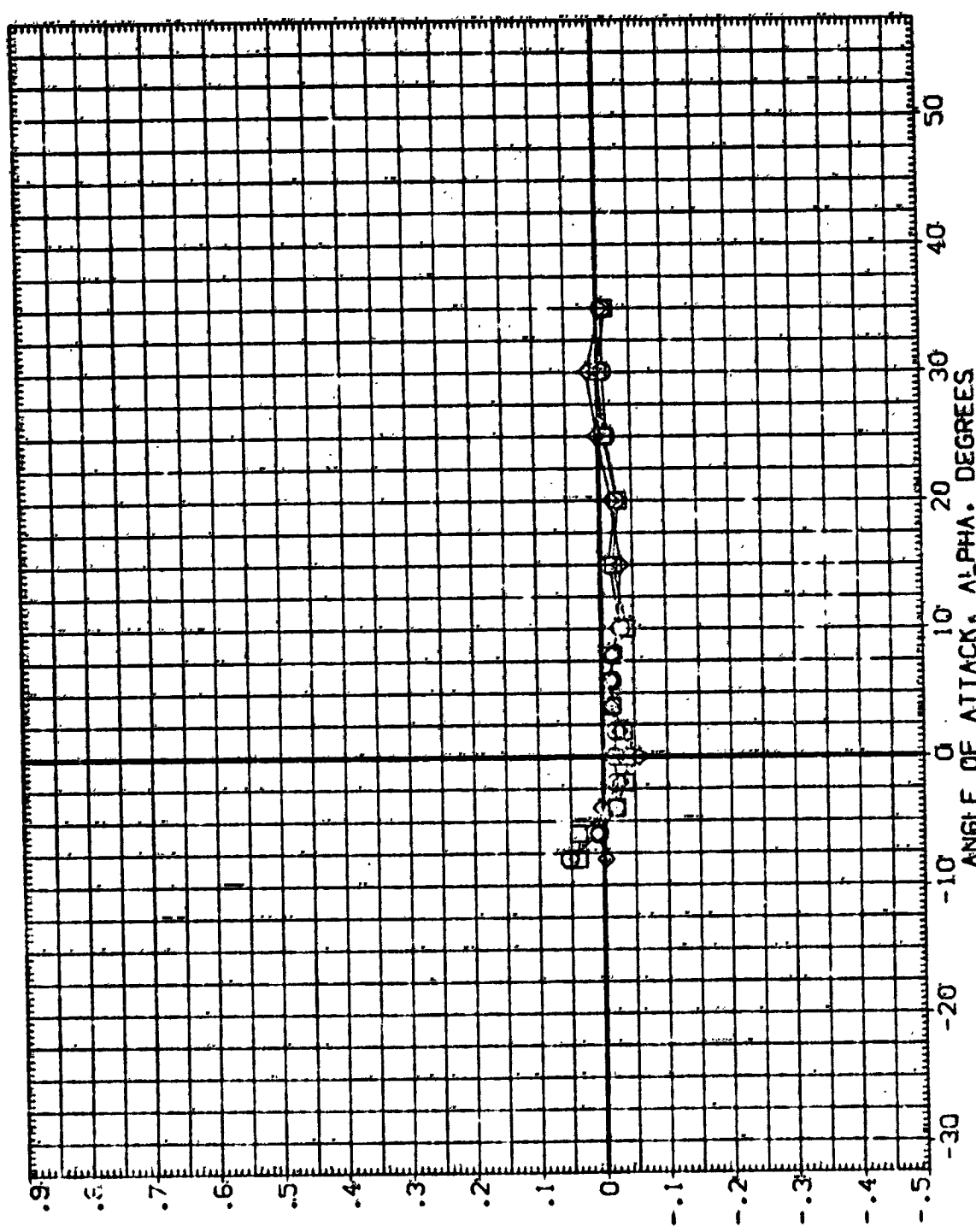


FIGURE 38. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N82

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CJA169)	QIN82	LARC CFMT 118 (MA-22)
(CJA168)	QIN82	LARC CFMT 118 (MA-22)
(CJA167)	QIN82	LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP TABA-1

.000	3.000	.000	199.000
.000	3.000	.000	95.000
.000	3.000	.000	47.500

REFERENCE INFORMATION

SREF	2630.0000	50. FT.
LREF	47.8000	INCHES
BREF	936.6000	INCHES
XMRP	1076.7000	IN. NO
YMRP	.0000	IN. NO
ZMRP	393.0000	IN. NO
SCALE	.0100	

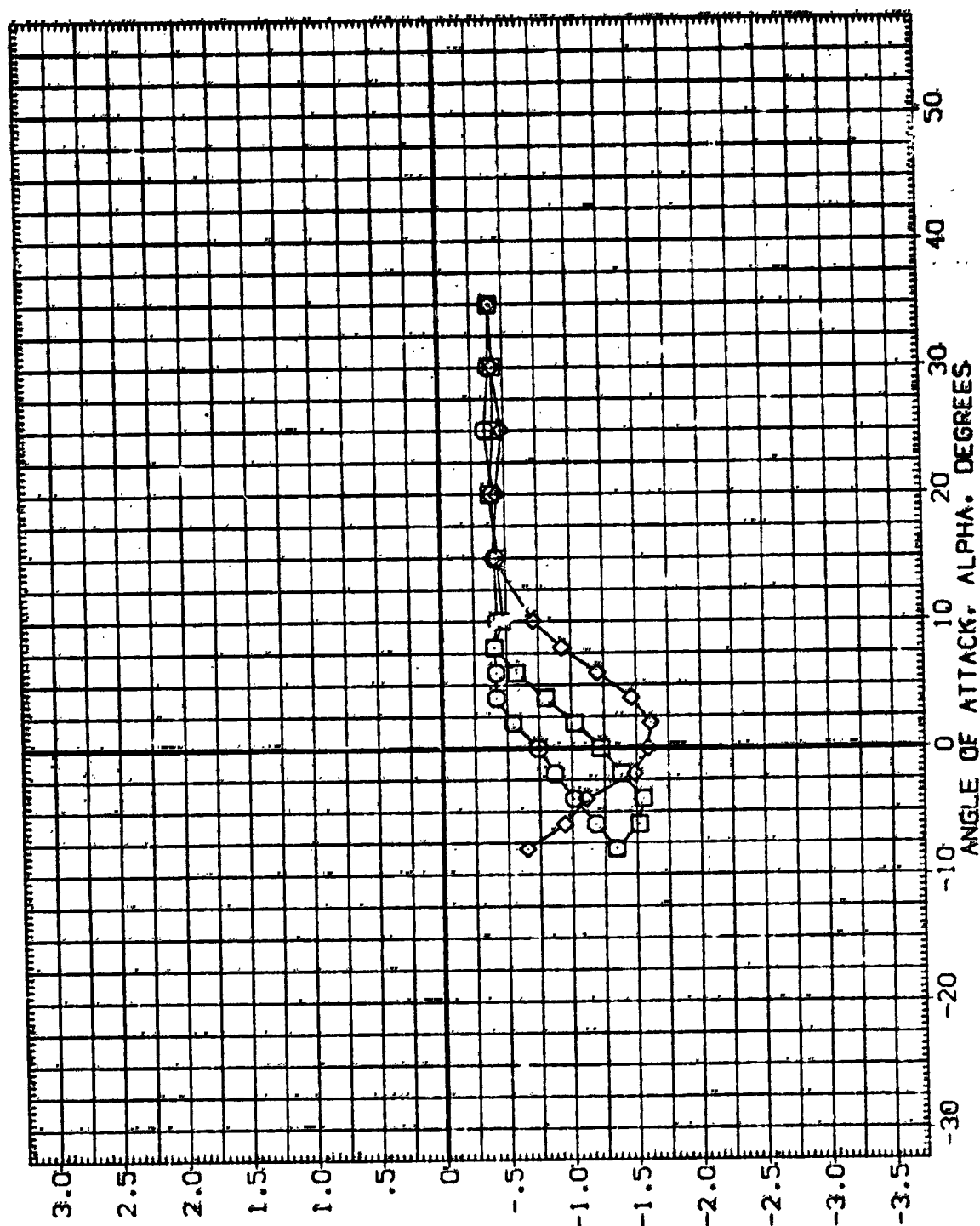


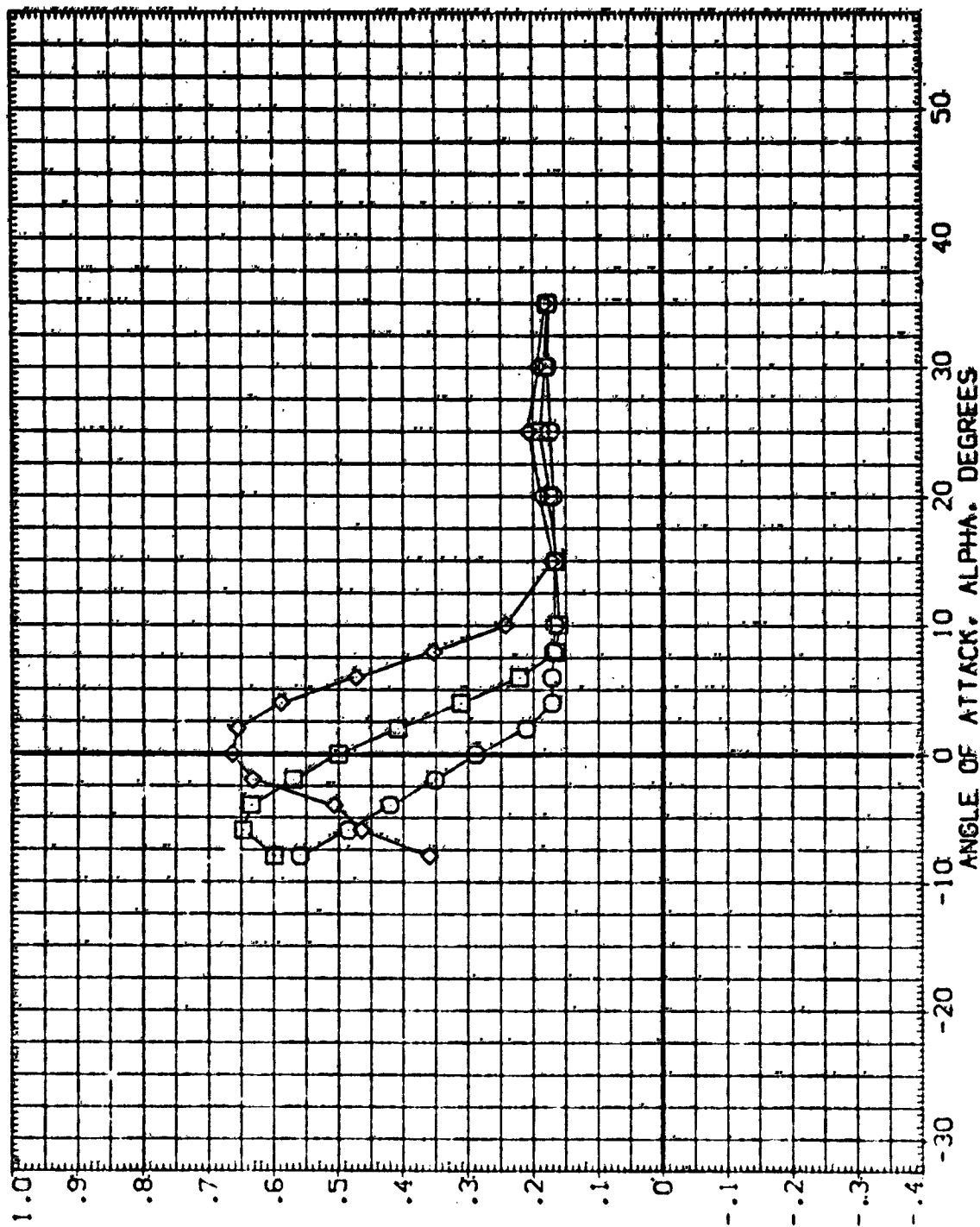
FIGURE 38. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N82

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA158) GIN82 LARC CFMT 118 (MA-22)
 (CJA158) GIN82 LARC CFMT 118 (MA-22)
 (CJA158) GIN82 LARC CFMT 118 (MA-22)

ELEVON NO. JET BDFLAP T/OA-1
 .006 3.000 .000 190.000
 .000 3.000 .000 55.000
 .000 3.966 .000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 SD.FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. 10
 YMRP .0000 IN. 10
 ZMRP 375.0000 IN. 10
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, NCM)

FIGURE 38. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N82

(A)MACH = 10.33

DATA SET SYMBOL
(CJA169)
(CJA168)
(CJA167)

CONFIGURATION DESCRIPTION
Q1N82 LARC CFMT 118 (MA-22)
Q1N82 LARC CFMT 118 (MA-22)
Q1N82 LARC CFMT 118 (MA-22)

ELEVON NB JET BDF LAP T/OA-1
.000 3.000 .000 190.000
.000 3.000 .000 93.000
.000 3.000 .000 47.500

REFERENCE INFORMATION
SD.FT. 2690.0000
INCHES 474.8000
INCHES 936.6800
IN. 1076.7000
IN. 375.0000
IN. 375.0000
SCALE .0100

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

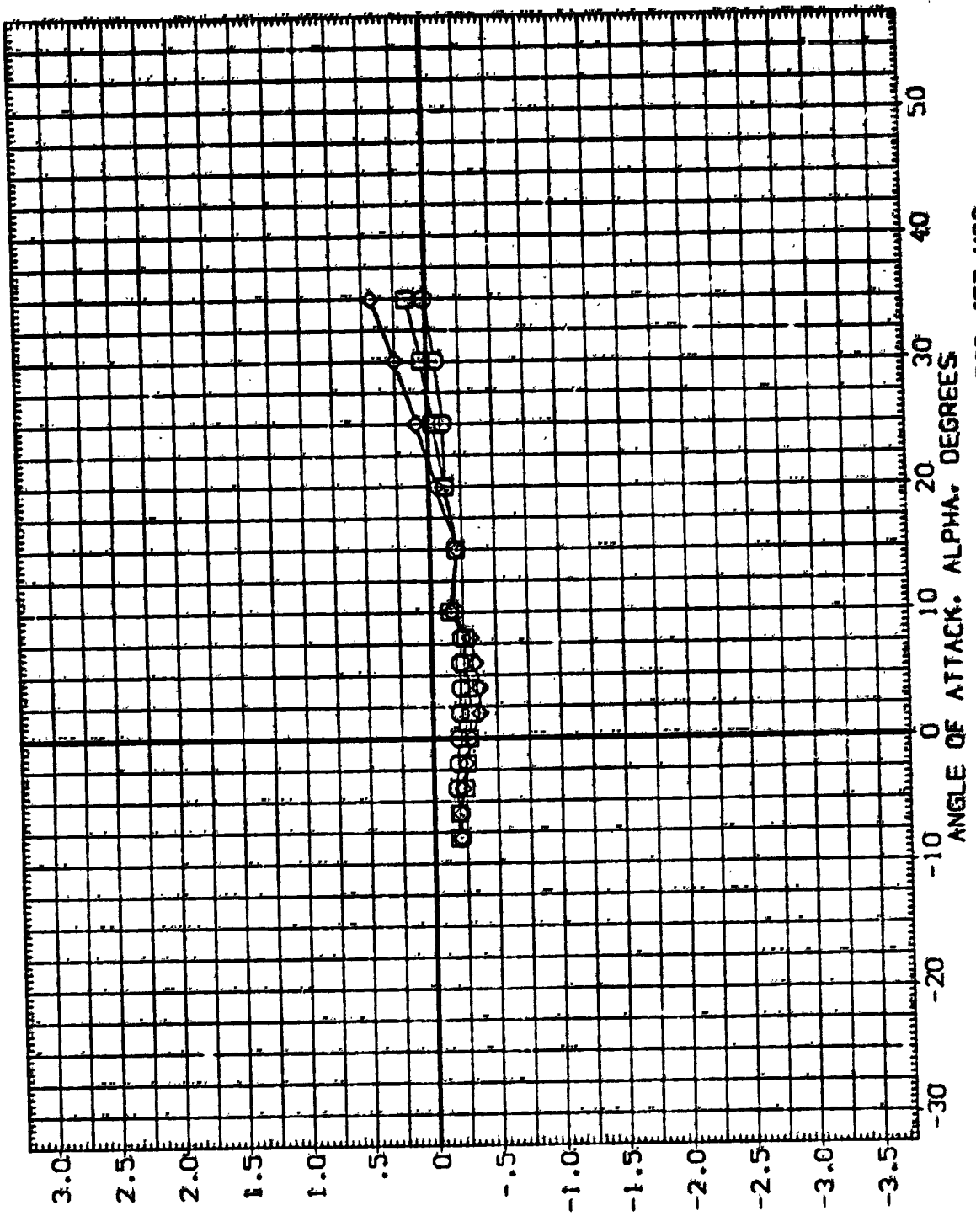


FIGURE 38. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N82

(CA)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BOFLAP		7/0A-1		REFERENCE INFORMATION	
(JA 169)	01:82	LARC CFMT 118 (MA-22)	.000	3.000	.000	190.000	SREF	2690.0000	50. FT.				
(JA 166)	01:82	LARC CFMT 118 (MA-22)	.000	3.000	.000	95.000	LREF	474.8000	INCHES				
(JA 167)	01:82	LARC CFMT 118 (MA-22)	.000	3.000	.000	47.500	BREF	936.6800	INCHES				
							XREF	1076.7000	IN. 10				
							YREF	.0000	IN. 10				
							ZREF	375.0000	IN. 20				
							SCALE	.0100					

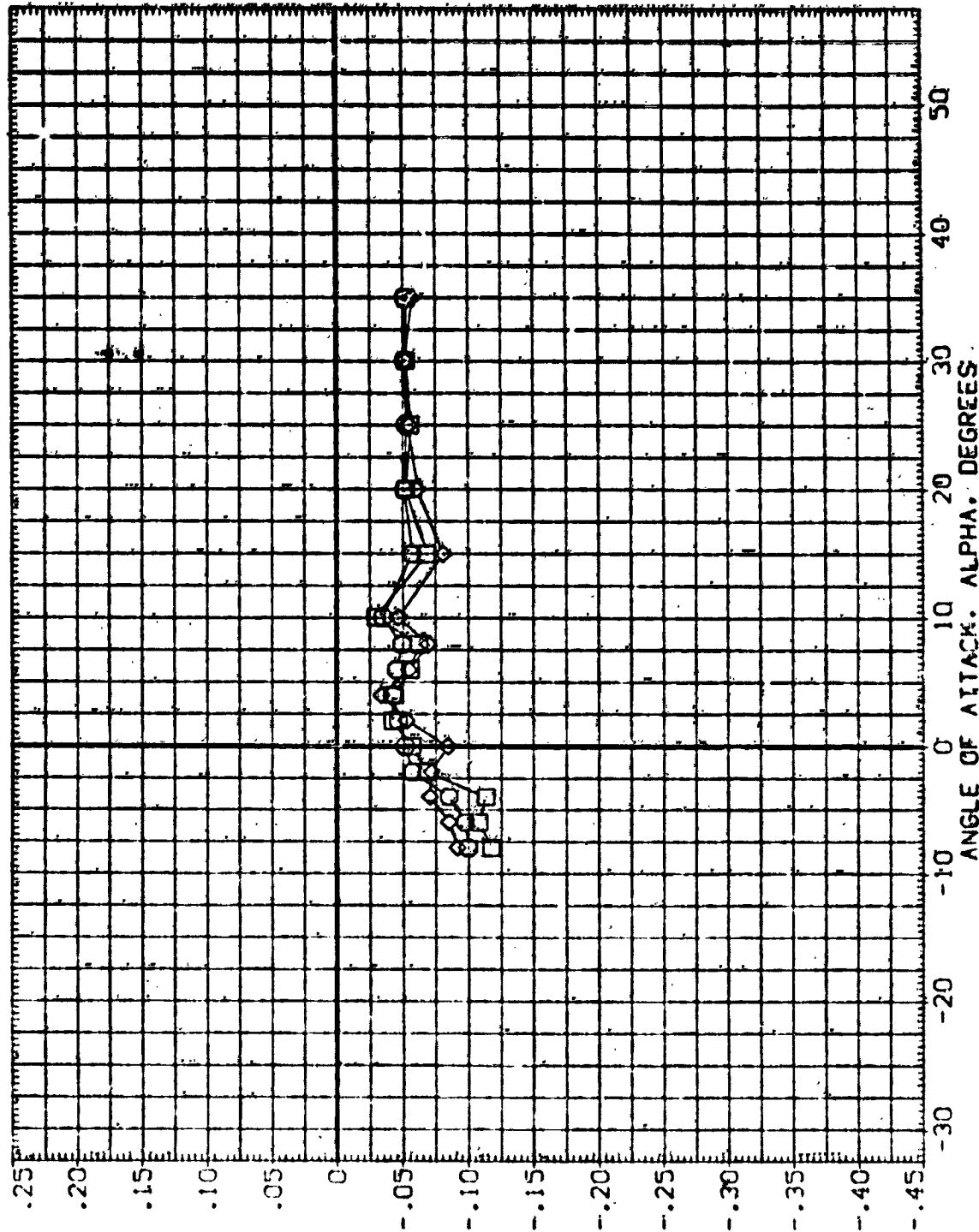


FIGURE 38. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N82

(A)MACH = 10.33

DATA SET SYMBOL
 (CJA169)
 (CJA168)
 (CJA167)

CONFIGURATION DESCRIPTION
 LARC CMT 118 (NA-22)
 LARC CMT 118 (NA-22)
 LARC CMT 118 (NA-22)

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 YREF 1076.7000 IN. TO
 ZREF 375.0000 IN. TO
 SCALE .0100

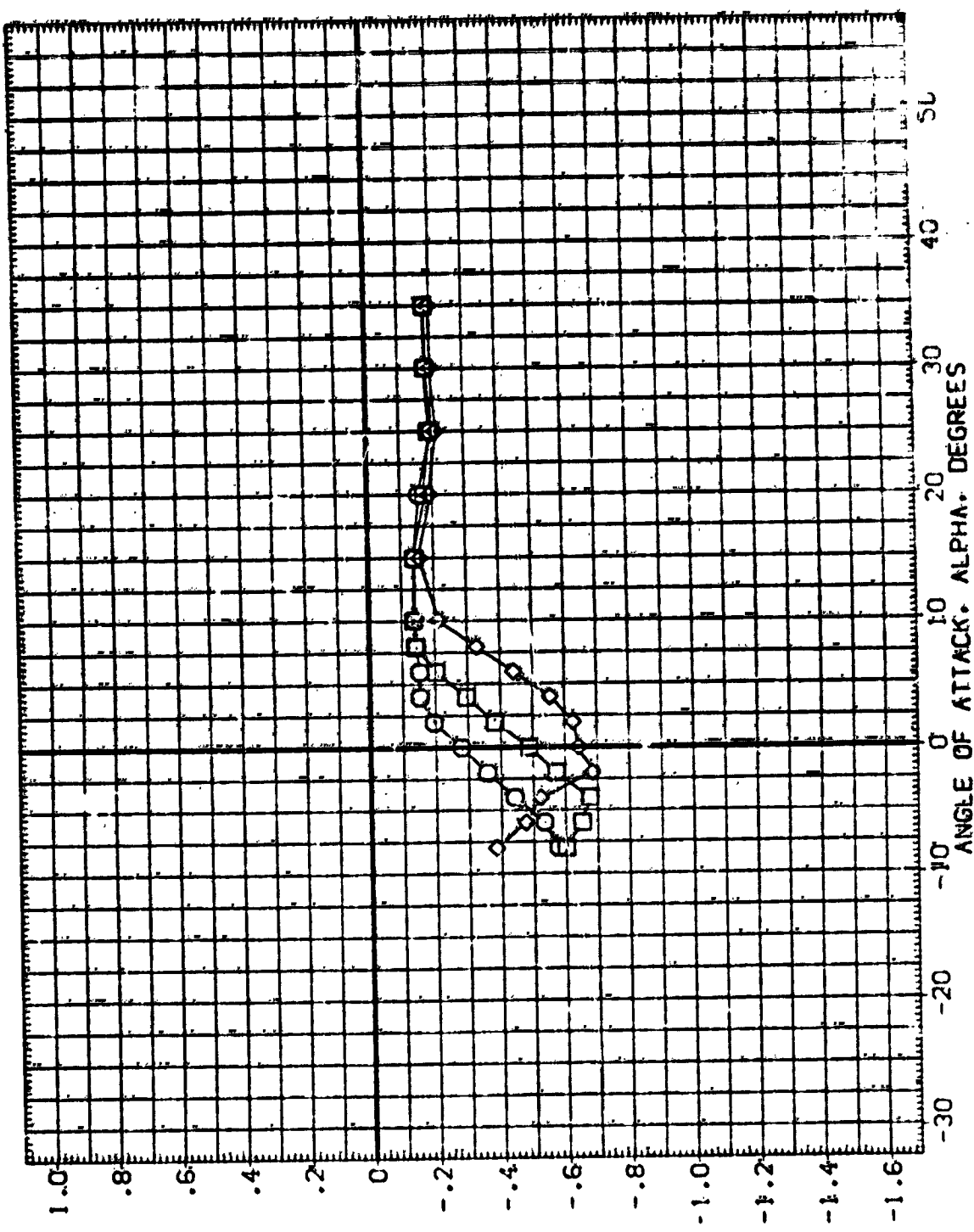


FIGURE 38. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N82

(A) MACH = 10.33

DATA SET SYMBOL: (CJAC30), (CJAC29), (CJAC28)

CONFIGURATION DESCRIPTION: 01N29N78 LARC CFMT 118 (MA-22), 01N79N78 LARC CFMT 118 (MA-22), 01N79N78 LARC CFMT 118 (MA-22)

ELEVON: .000, .000, .000

NO. JET: 2.080, 2.080, 2.000

BOFLAP: .000, .000, .000

TQA-1: 190.000, 95.000, 47.500

REFERENCE INFORMATION: SREF 2690.0000, LREF 474.8000, BREF 936.5800, XMRP 1876.7000, YMRP .0000, ZMRP 375.0000, SCALE .0100

SO. FT. INCHES, IN. X0, IN. Y0, IN. Z0

ANGLE OF ATTACK, ALPHA, DEGREES

RCS JET AMPLIFICATION FACTOR - PITCH, NCPM

FIGURE 39. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JETS N79N78

(A) MACH = 10.33

PAGE 639

DATA SET SYMBOL EQUATION NO. DESCRIPTION
 (CJA030) 01N79N78 LARC CFHT 118 (MA-22)
 (CJA035) 01N79N78 LARC CFHT 118 (MA-22)
 (CJA038) 01N79N78 LARC CFHT 118 (MA-22)

ELEVATION NO. JET WING LAMP 1/1000
 .000 2.000 .000 190.000
 .000 2.000 .000 35.000
 .000 2.000 .000 47.500

MEDIANLINE IN. ORIGIN
 SREF 2600.0000 SQ. FT.
 LREF 424.8000 INCHES
 BREF 536.6800 INCHES
 YMRP 1076.7000 IN. X0
 YMRP .0800 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - ROLL, NCRM

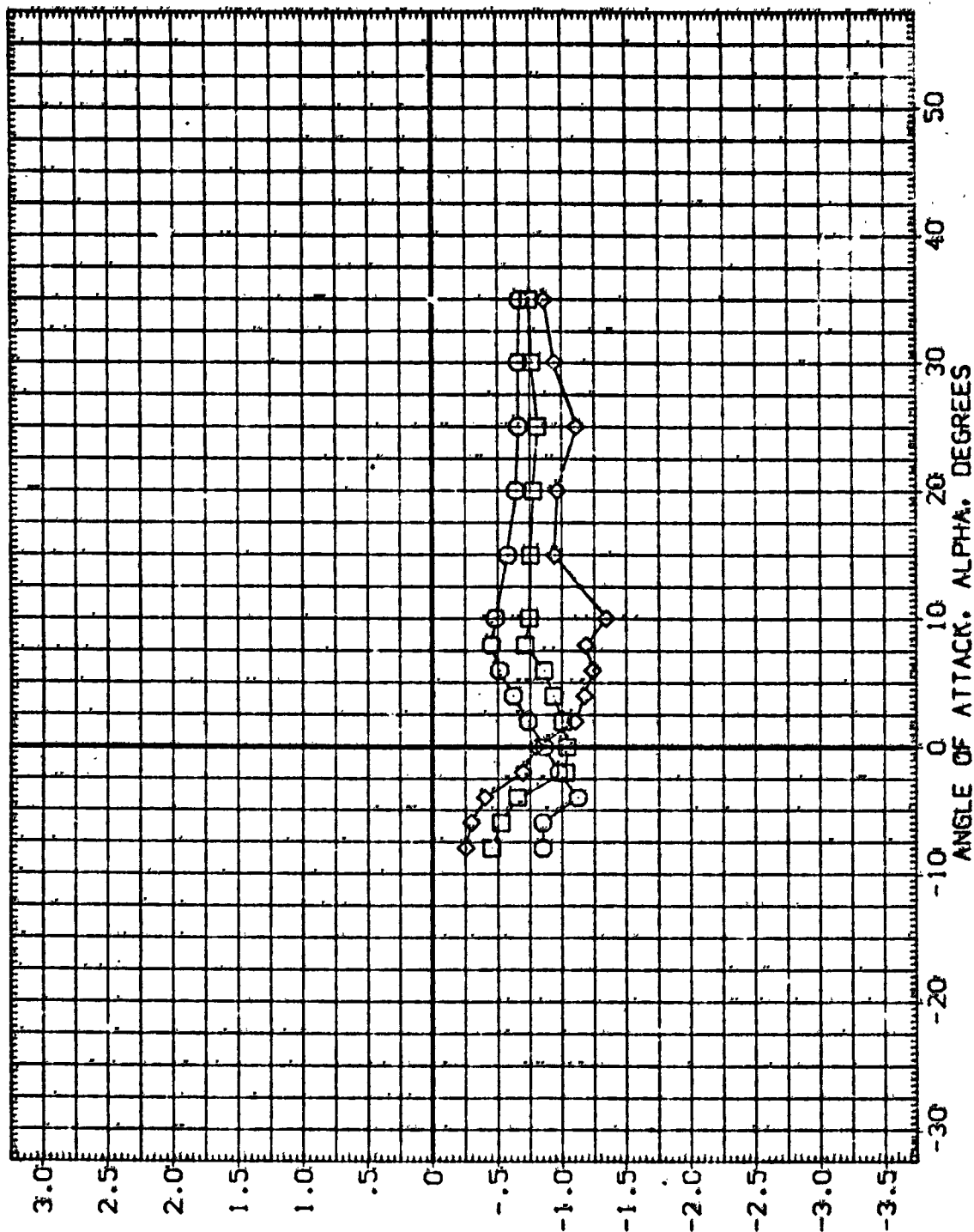


FIGURE 39. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JETS N79N78

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA020) G1N79N78 LARC CFHT 118 (MA-22)
 (CJA021) G1N79N78 LARC CFHT 118 (MA-22)
 (CJA022) G1N79N78 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDFLAP Y/GA-1
 .000 2.000 .000 190.000
 .000 2.000 .000 95.000
 .000 2.000 .000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 YMRP 1876.7800 IN. X0
 ZMRP 375.0000 IN. X0
 SCALE .0100

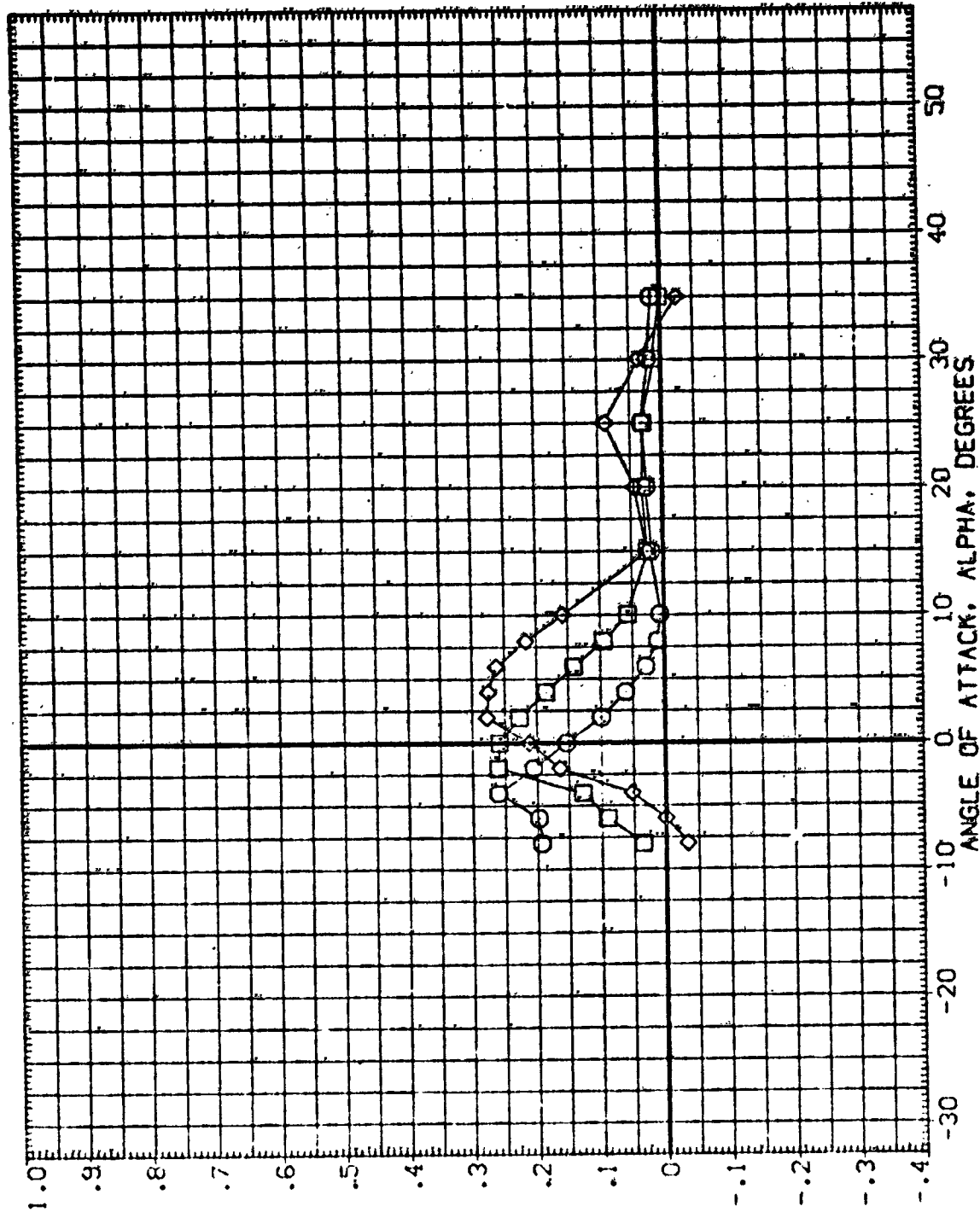


FIGURE 39. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JETS N79N78

(M)MACH = 10.33

LREF 474.8000
 BREF 936.6800
 XREF 1076.7000
 YREF .0000
 ZREF 375.0000
 SCALE .0100

1000 1.000
 1000 2.000
 1000 47.500
 1000 95.000

LANE CPMT 118 (PA-22)
 LARE CPMT 118 (PA-22)
 LANE CPMT 118 (PA-22)
 LARE CPMT 118 (PA-22)

(CMA029)
 (CMA028)

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, N(NF)

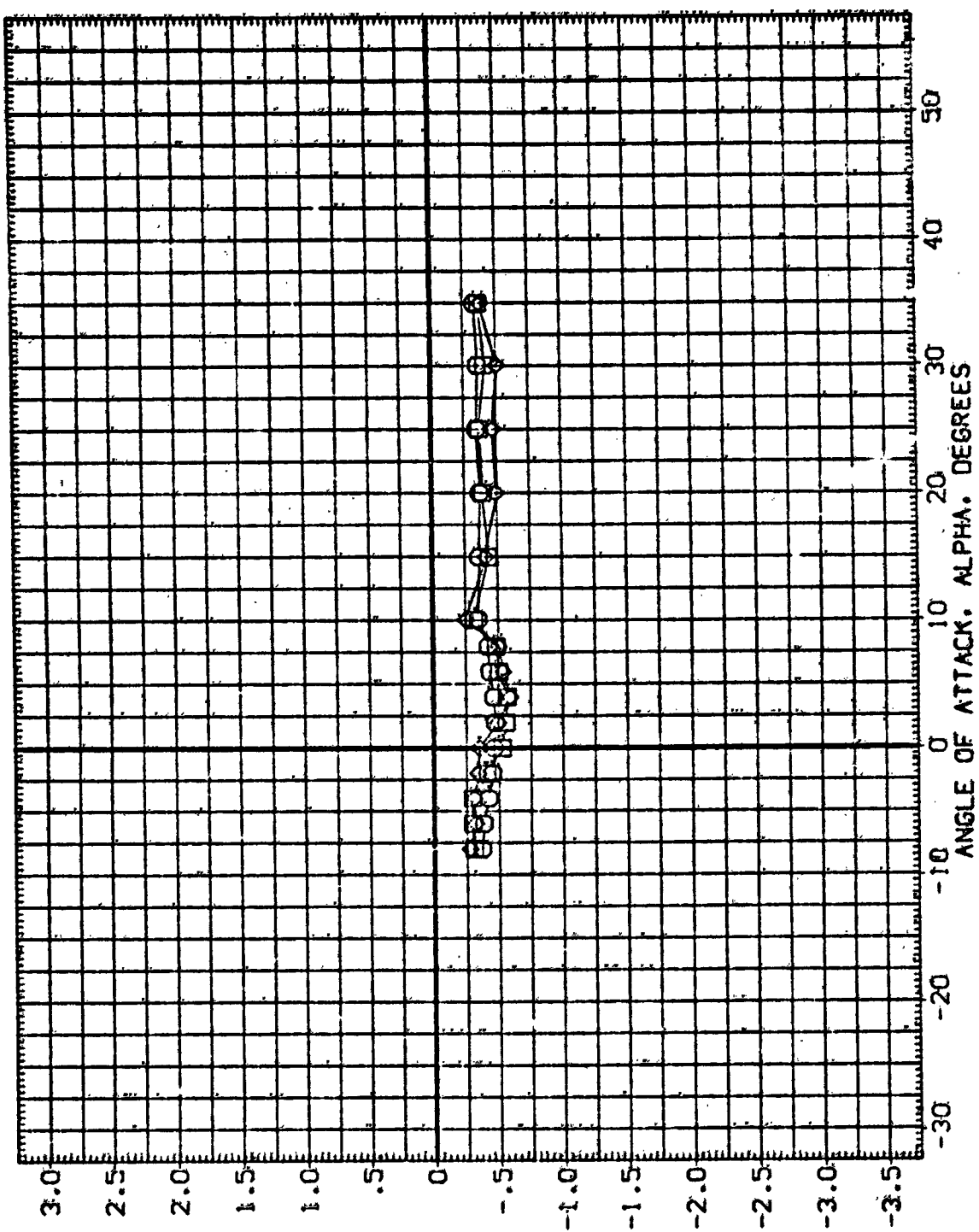


FIGURE 39. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JETS N79N78

(A)MACH = 10.33 PAGE 642

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON	NO. JET	BOFLAP	T/OA-1	REFERENCE INFORMATION	
(CJA030)	Q1A79N78	LARE CFHT 118 (MA-22)		.008	2.000	.008	190.000	SREF	2690.0000
(CJA039)	Q1A79N78	LARE CFHT 118 (MA-22)		.008	2.000	.008	55.000	LREF	474.8000
(CJA038)	Q1A79N78	LARE CFHT 118 (MA-22)		.008	2.000	.008	47.508	BREF	936.6800
								XMRP	1076.7000
								YMRP	.0000
								ZMRP	375.0000
								SCALE	.0100

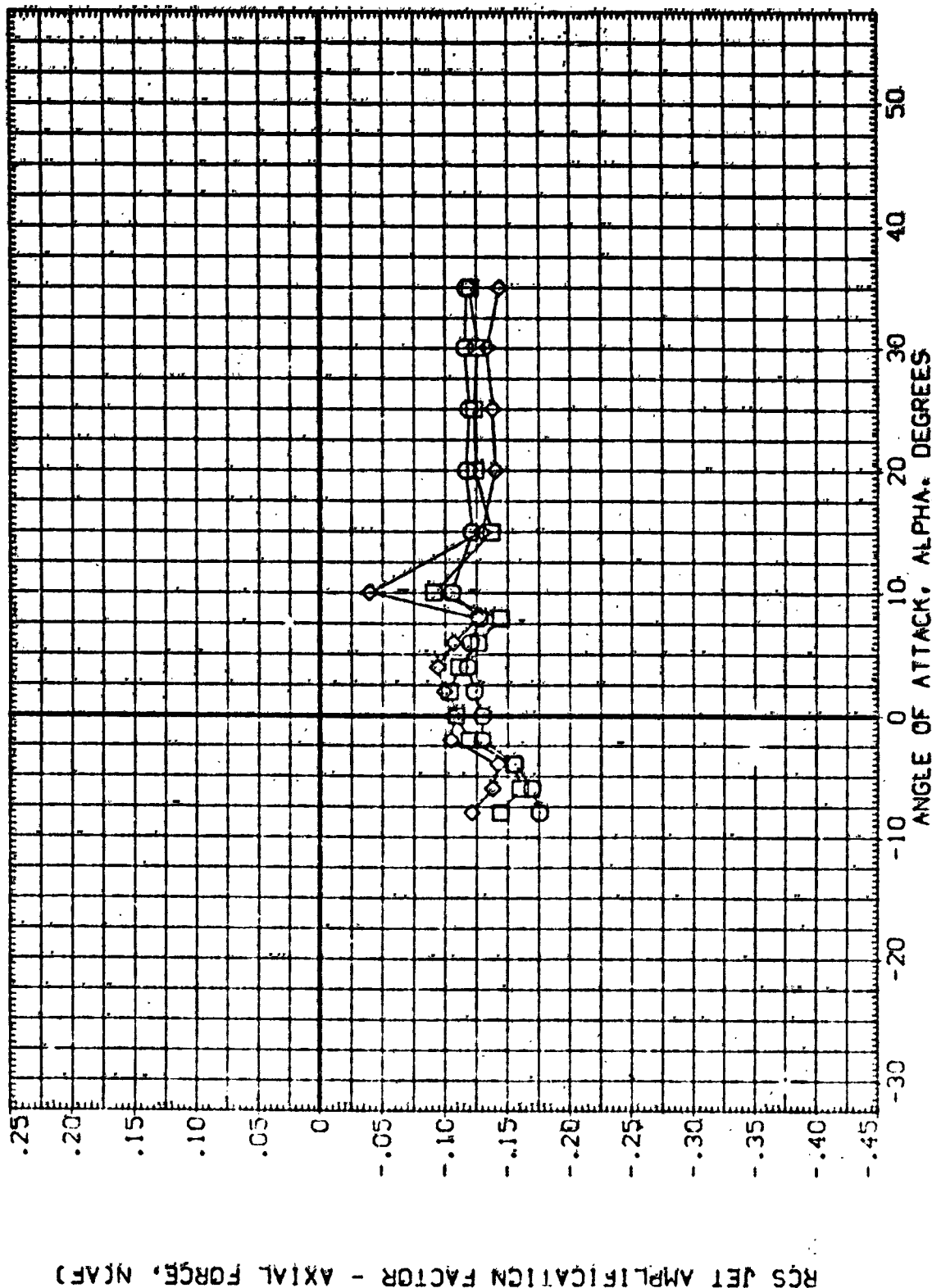


FIGURE 39. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JETS N79N78

(A) MACH = 10.33

A graph showing the normalized velocity components u^* and v^* versus the angle of attack α (in degrees) for a diamond airfoil. The x-axis ranges from -30 to 50 degrees, and the y-axis ranges from -1.6 to 1.0. The data points are plotted for u^* (circles) and v^* (squares). The velocity components are zero at $\alpha = 0$ and increase linearly with α for small angles. The u^* component is positive for $\alpha > 0$ and negative for $\alpha < 0$, while the v^* component is negative for $\alpha > 0$ and positive for $\alpha < 0$.

Angle of Attack α (degrees)	u^* (circles)	v^* (squares)
-30	-0.15	0.15
-20	-0.10	0.10
-10	-0.05	0.05
0	0.00	0.00
10	0.05	-0.05
20	0.10	-0.10
30	0.15	-0.15

PAGE 644

(A)MACH. = 10.33

NO.	JEY	BOFLAP	Y/DIA-I	REFERENCE IN GRAM.	SD.JY
ELEVON	.000	.000	190.800	STEF	2560.0000
	.000	.000	2.000	LEF	474.8800
	.000	.000	95.000	BREF	306.6800
	.000	.000	47.360	YHP	1076.7000
				YHP	.0808
				YHP	375.0800
				SCALE	.0100

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA117) 0118NS50 LARC CFHT 118 (MA-22)
 (CJA116) 0118NS50 LARC CFHT 118 (MA-22)
 (CJA115) 0118NS50 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP T/OA-1
 .000 2.000 .080 127.700
 .000 2.000 .000 95.000
 .000 2.000 .000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6000 INCHES
 YMRP 1076.2000 IN. X0
 YMRP 375.0000 IN. X0
 ZMRP 375.0000 IN. X0
 SCALE .0100

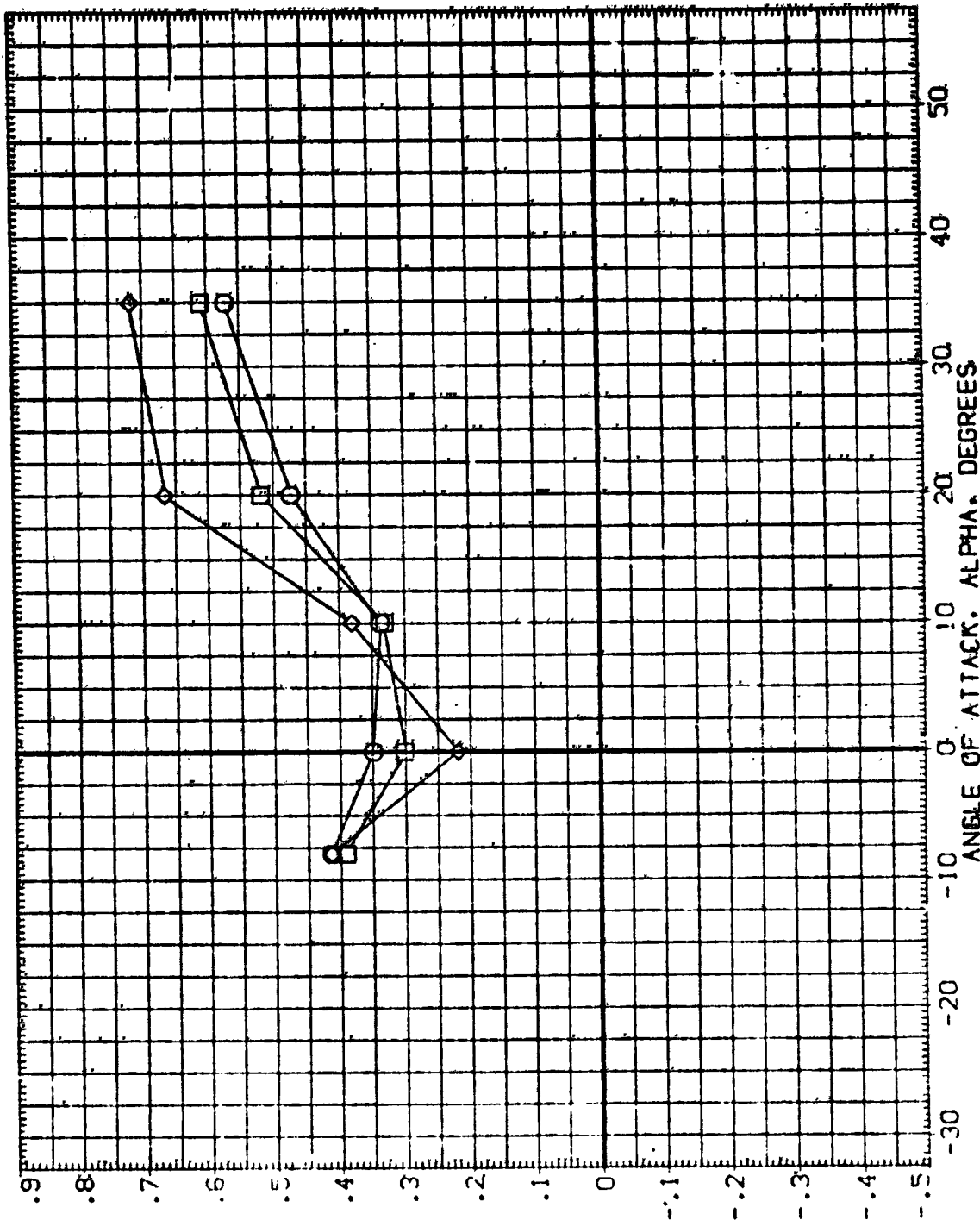


FIGURE 40. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N50N85

(CA)MACH = 10.33

CONFIGURATION DESCRIPTION	DATE	BY	REVISION
1. Initial Configuration	10/10/2023	J. Smith	1.0
2. Updated Configuration	11/10/2023	J. Smith	2.0
3. Final Configuration	12/10/2023	J. Smith	3.0

ELEVON	NO-JET	BOFLAP	Y/BA-I
.000	2.000	.090	127.700
.000	2.000	.000	95.000
.000	2.000	.000	47.500

REFERENCE INFORMATION		50 FT. INCHES	IN. X0	IN. Y0	IN. Z0
SREF	1690.0000				
LREF	474.8000				
BREF	926.6800				
XMRP	1076.7000				
YMRP	.0000				
ZMRP	375.0000				
SCALE	.0100				

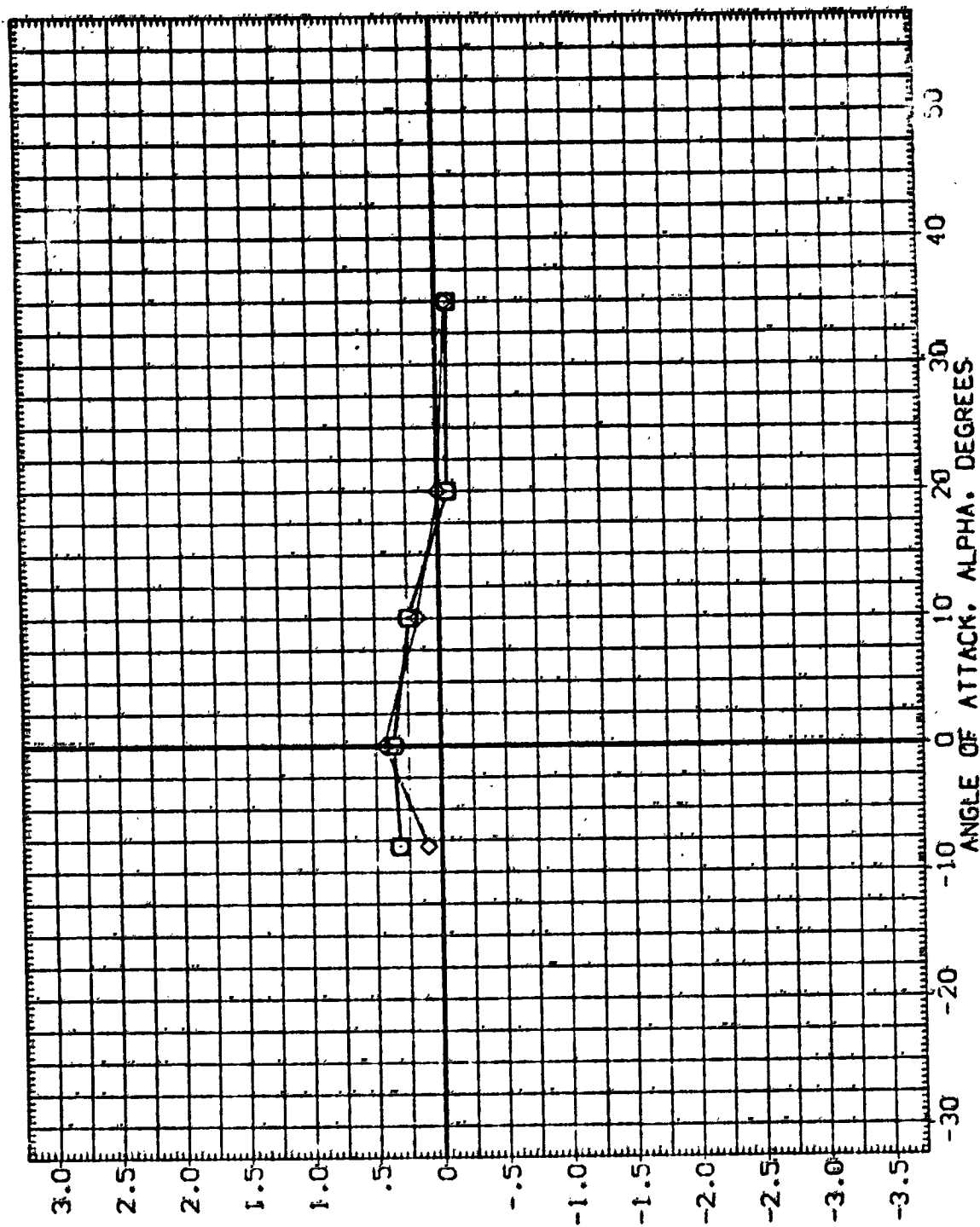


FIGURE 40. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N50N85

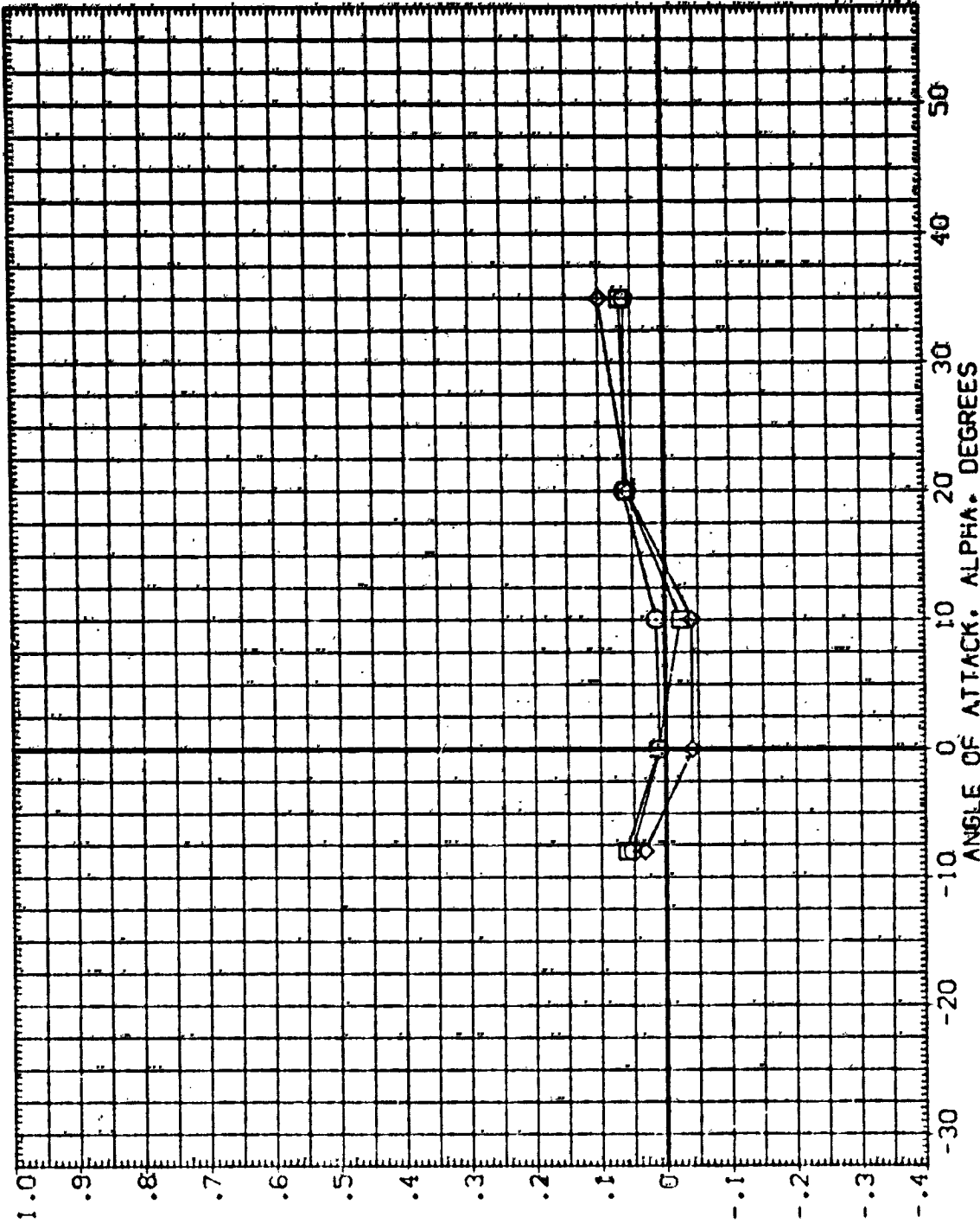
$CA_{MACH} = 10.33$

PAGE 646

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA-117) Q1N85N50 LARC CFMT 118 (MA-22)
 (CJA-116) Q1N85N50 LARC CFMT 118 (MA-22)
 (CJA-115) Q1N85N50 LARC CFMT 118 (MA-22)

ELEVON NO. JET BDCLAP YAGA-1
 .000 2.000 .000 127.700
 .000 2.000 .000 95.800
 .000 2.000 .000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6000 INCHES
 XRRP 1076.7000 IN. X0
 YRRP .0000 IN. Y0
 ZRRP 375.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, NCRM

FIGURE 40. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N50N85

(MACH = 10.33)

ELEVEN	NO. JET	BDF LAP	Y/OA-1
.000	2.000	.000	127.700
.000	2.000	.000	95.000
.000	2.000	.000	47.500

REFERENCE INFORMATION		50. FT. INCHES	IN. NO	IN. NO
SREF	2690.0000			
LREF	474.8000			
BREF	936.6000			
XMRP	1076.7000			
YMRP	.0000			
ZMRP	375.0000			
SCALE	.0100			

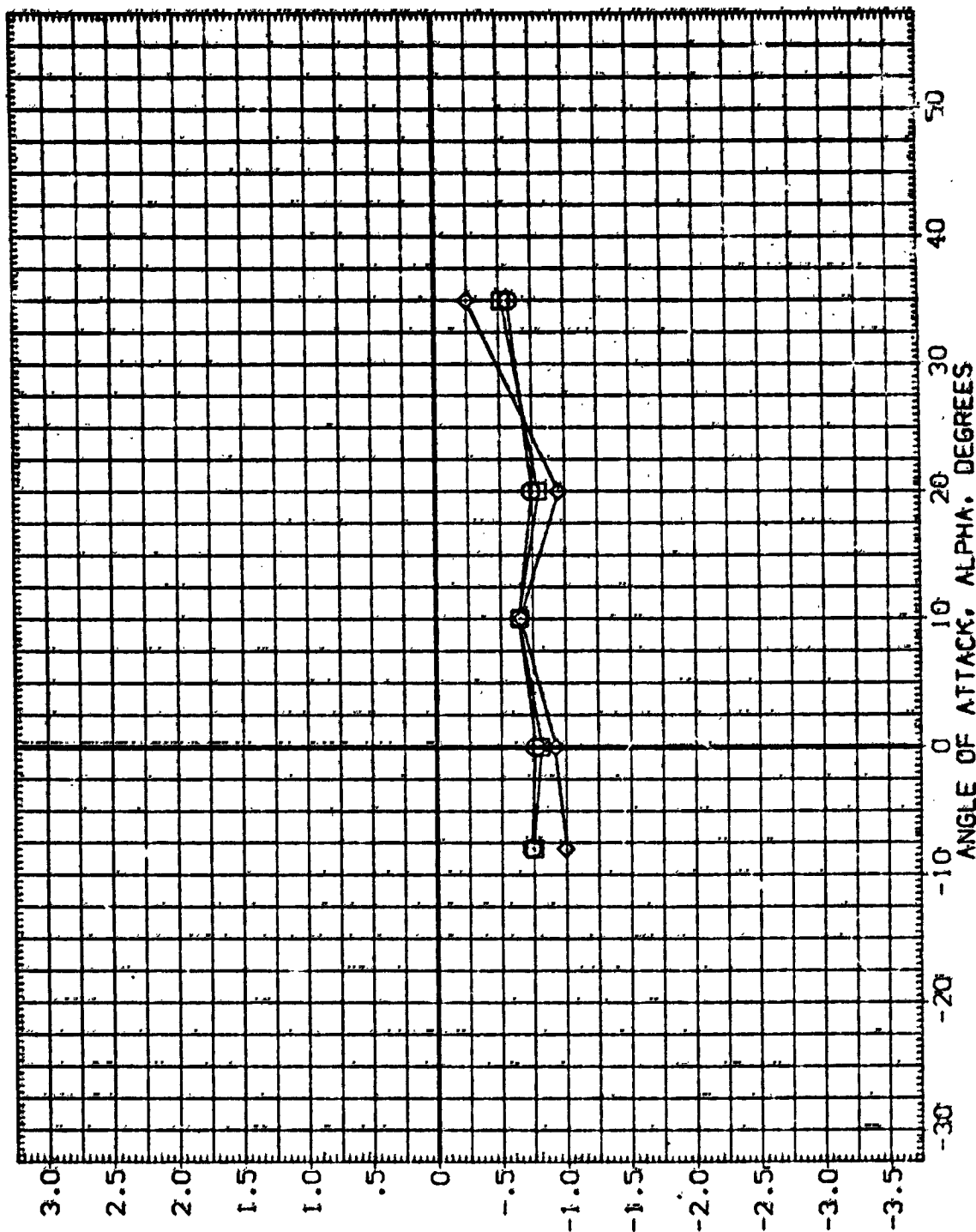


FIGURE 40. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N50N85

CAMACH = 10.33

PAGE 648

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	TADA-1	REFERENCE INFORMATION
(CJA:17)	01M85N50 LARC CFMT 118 (MA-22)	.008	2.000	.000	127.700	SREF 2690.0000 SO.FT.
(CJA:16)	01M85N50 LARC CFMT 118 (MA-22)	.000	2.000	.000	95.000	LREF 474.8000 INCHES
(CJA:15)	01M85N50 LARC CFMT 118 (MA-22)	.000	2.000	.000	47.500	BREF 536.8000 INCHES
						XREF 1076.7000 IN. X0
						YREF .0000 IN. Y0
						ZREF 375.0000 IN. Z0
						SCALE .0100

RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCAF

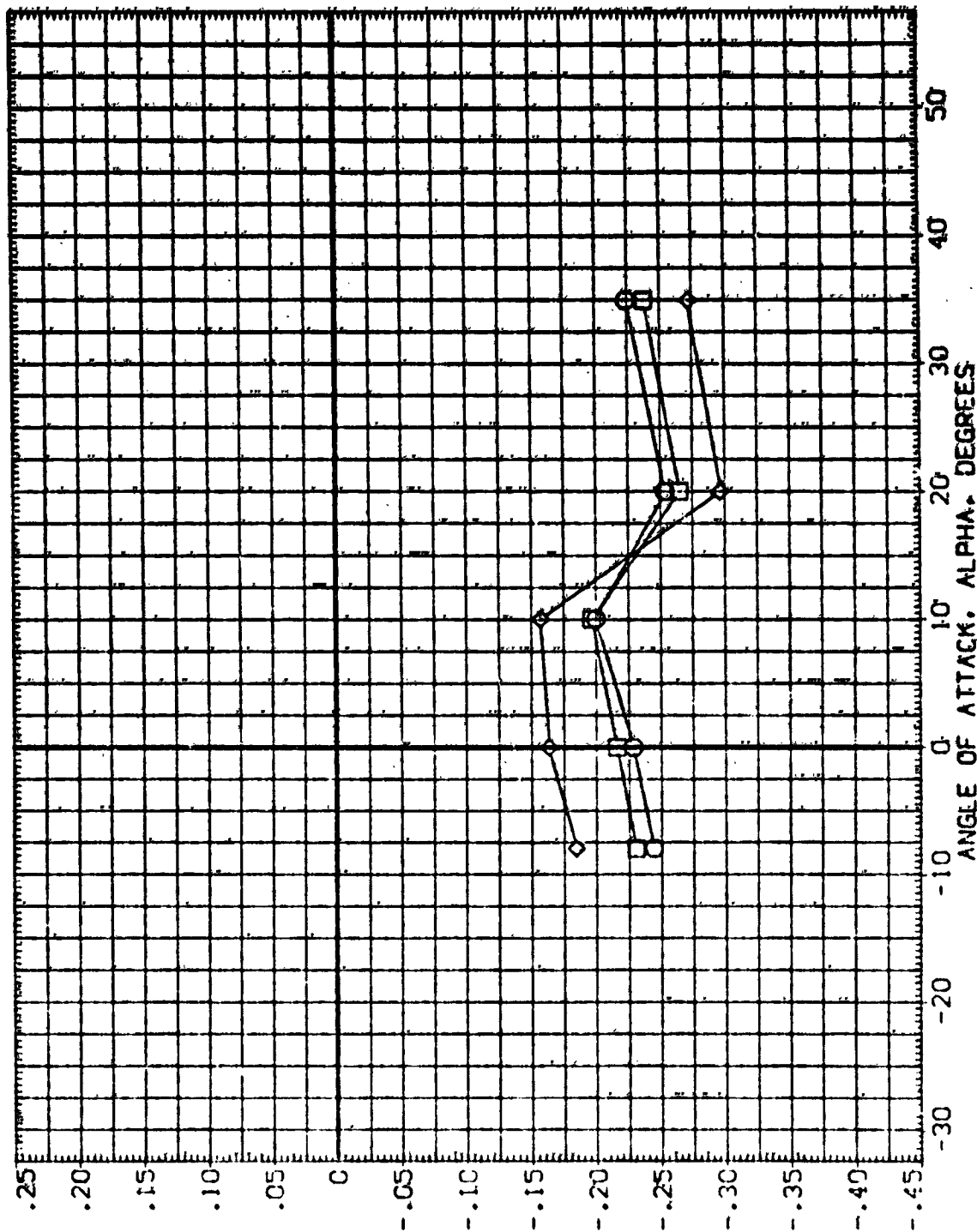


FIGURE 40. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N50N85

(AJMACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVEN NO. JET BOVLAP T/OA-Y REFERENCE INFORMATION

(CJA117)	Q1A85N50 LARC CFMT 118 (MA-22)	.000	2.000	.000	127.700	SREF	2650.0000	SO.FT.
(CJA116)	Q1A85N50 LARC CFMT 118 (MA-22)	.000	2.000	.000	55.000	LREF	474.8000	INCHES
(CJA115)	Q1A85N50 LARC CFMT 118 (MA-22)	.000	2.000	.000	47.500	BREF	938.6800	INCHES
						YREF	1076.2000	IN. 10
						ZREF	375.0000	IN. 10
						SCALE	.0100	

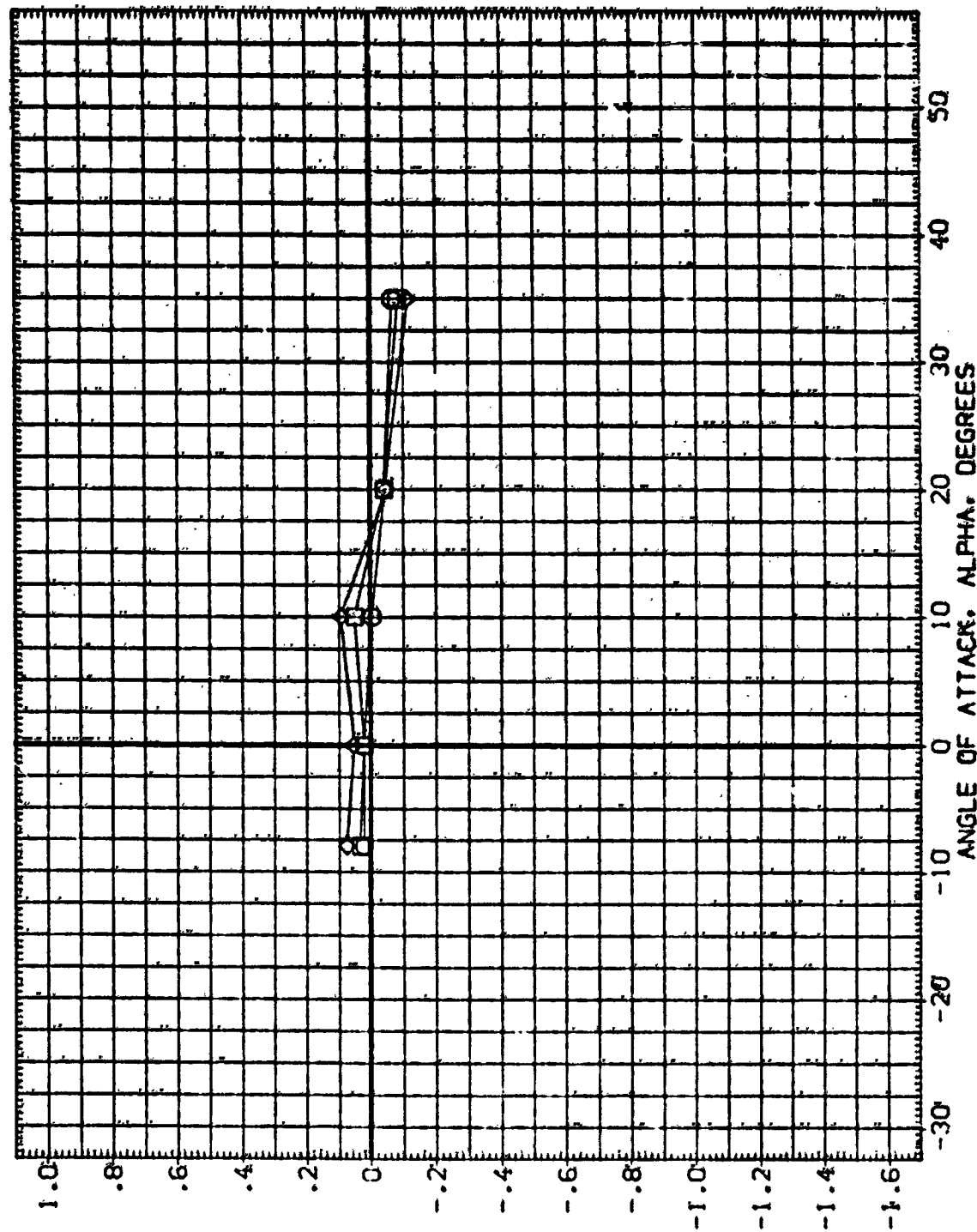


FIGURE 40. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N50N85

(MACH = 10.33)

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BOFLAP		T/A-1		REFERENCE INFORMATION	
(CJA089)	QIN84	LARC CFM1 118 (NA-22)	.000	2.000	.000	120.700	SREF	2690.0000	50.00				
(CJA089)	QIN84	LARC CFM1 118 (NA-22)	.000	2.000	.000	95.000	LOEF	474.8000	INCHES				
(CJA087)	QIN84	LARC CFM1 118 (NA-22)	.000	2.000	.000	47.500	BREF	936.6000	INCHES				
							VRBP	1076.7000	IN. TO				
							ZRBP	.0000	IN. TO				
							SCALE	375.0000	IN. TO				
									.0100				

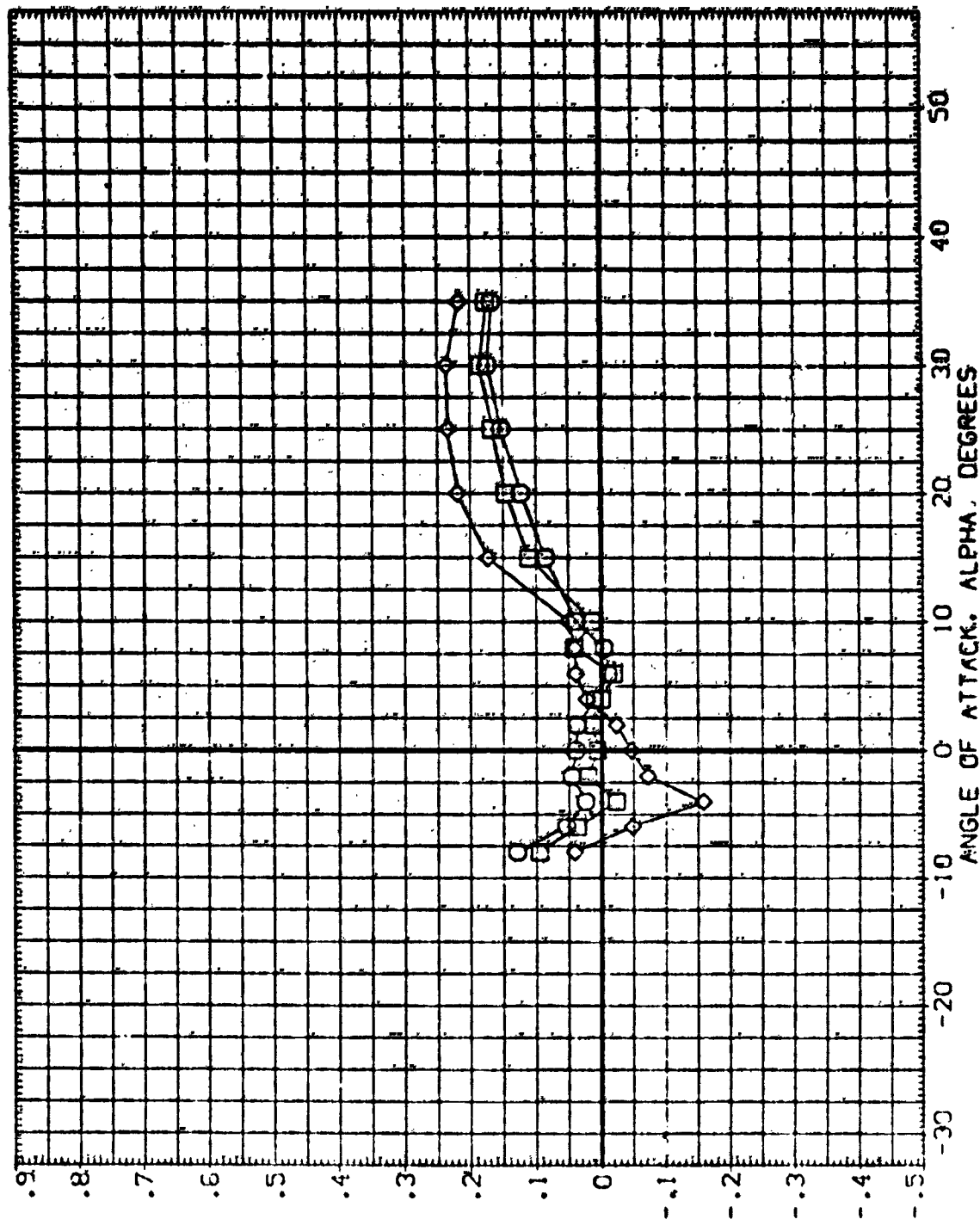


FIGURE 41. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N84

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	WFLAP	1/2A-1	REFERENCE INFORMATION
(CJ089)	LARC CFMT 118 (MA-22)	.000	2.000	.000	127.700	SRFP 2890.0000 52. FT.
(CJ088)	LARC CFMT 118 (MA-22)	.000	2.000	.000	95.000	LRFP 474.8000 14. INCHES
(CJ087)	LARC CFMT 118 (MA-22)	.000	2.000	.000	47.500	BRFP 935.8800 14. INCHES
						XRFP 1076.7000 14. INCHES
						VRFP .0000 14. INCHES
						2RFP 373.0000 14. INCHES
						SCALE .0100

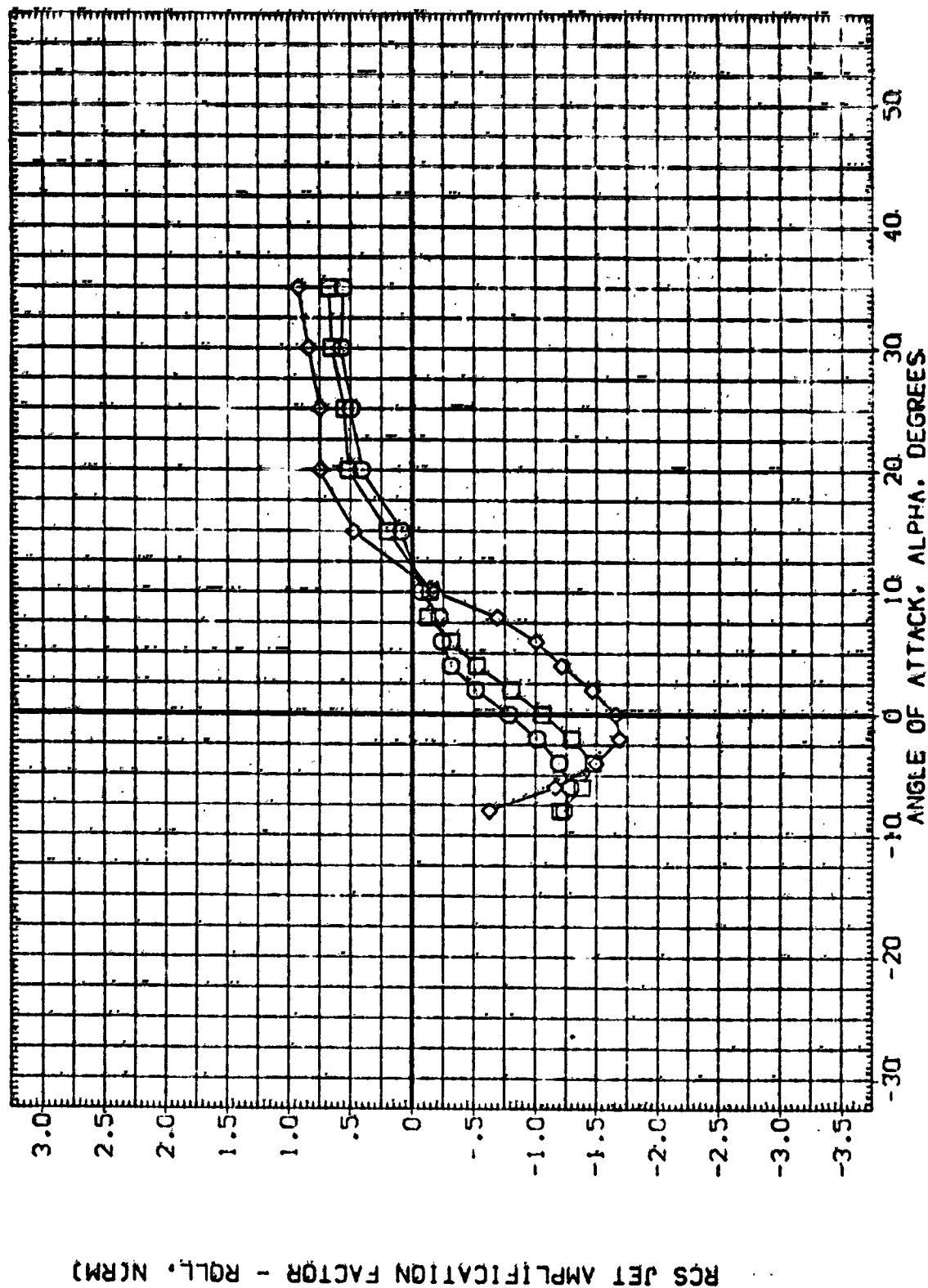


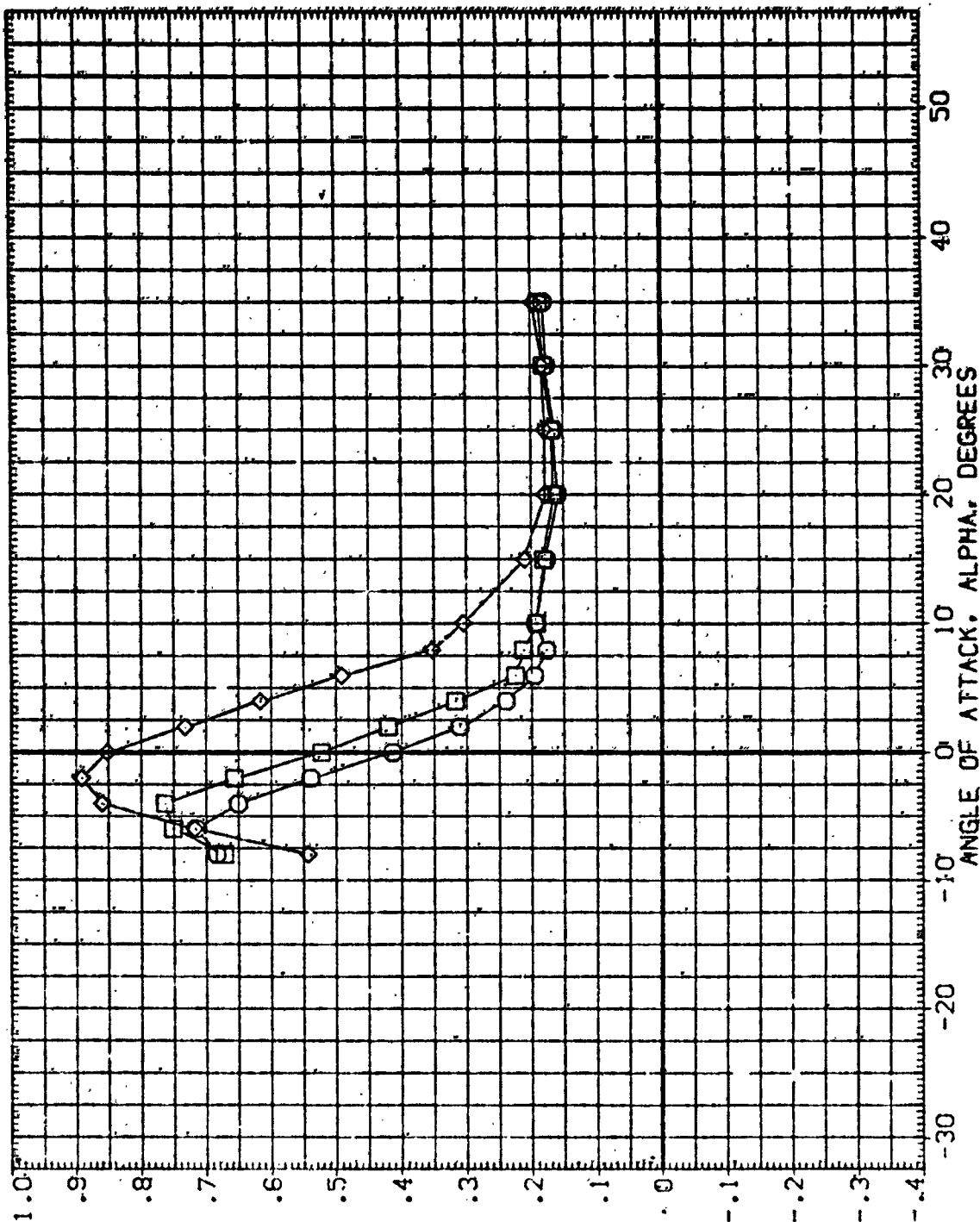
FIGURE 41. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N84

(A) MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA089) 01N84 LARC CFHT 118 (MA-22)
 (CJA088) 01N84 LARC CFHT 118 (MA-22)
 (CJA087) 01N34 LARC CFHT 118 (MA-22)

ELEVON NO. JET ROFLAP T/OA-1
 .000 2.000 .000 122.700
 .000 2.000 .000 95.800
 .008 2.000 .080 47.500

REFERENCE INFORMATION
 SREF 2690.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1026.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0800 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, NCMY

FIGURE 41. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N84

(M)MACH = 10.53

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(CJA083)	OLN8#	LARC CFHT 118 (MA-22)
(CJA088)	OLN8#	LARC CFHT 118 (MA-22)
(CJA087)	OLN8#	LARC CFHT 118 (MA-22)

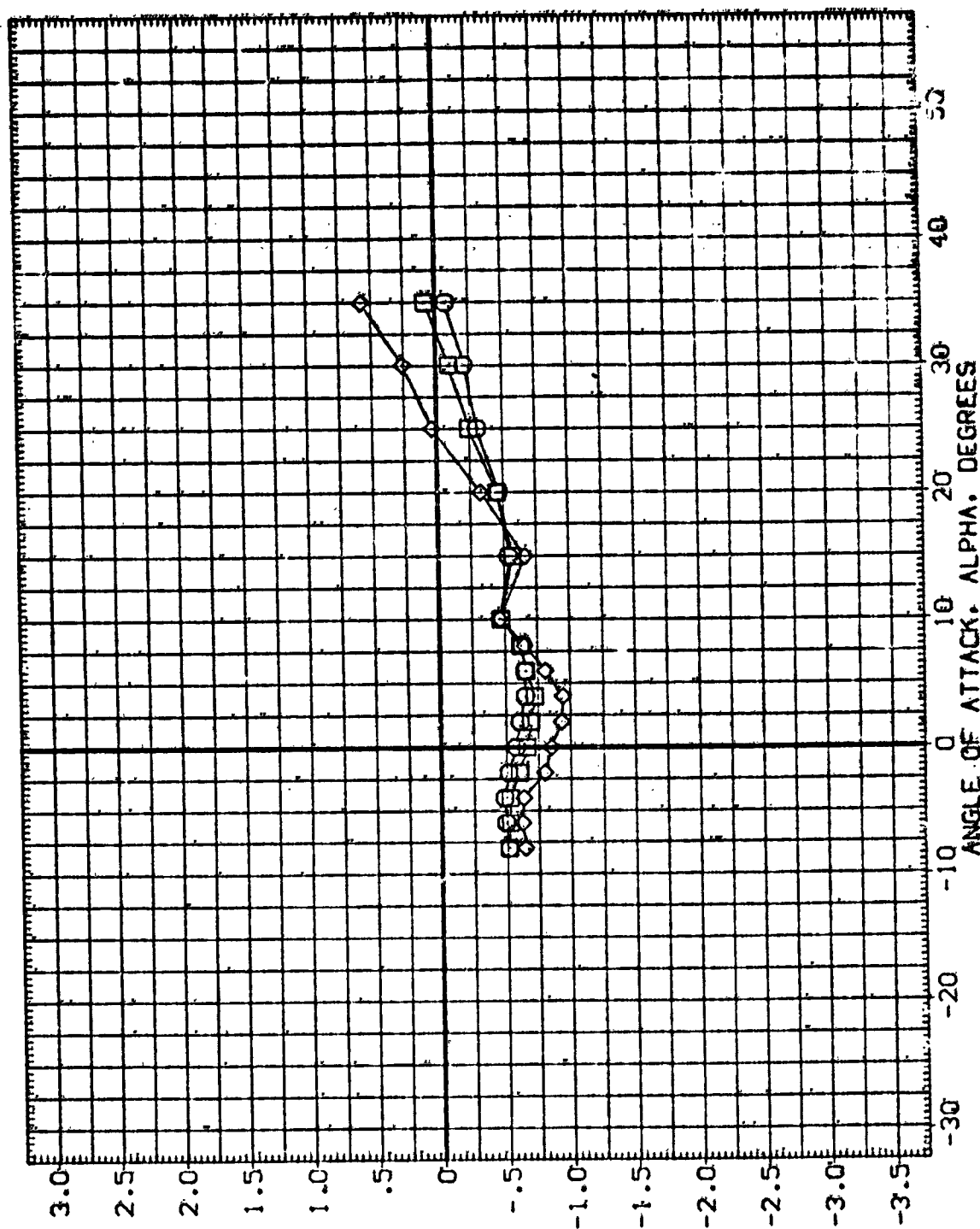


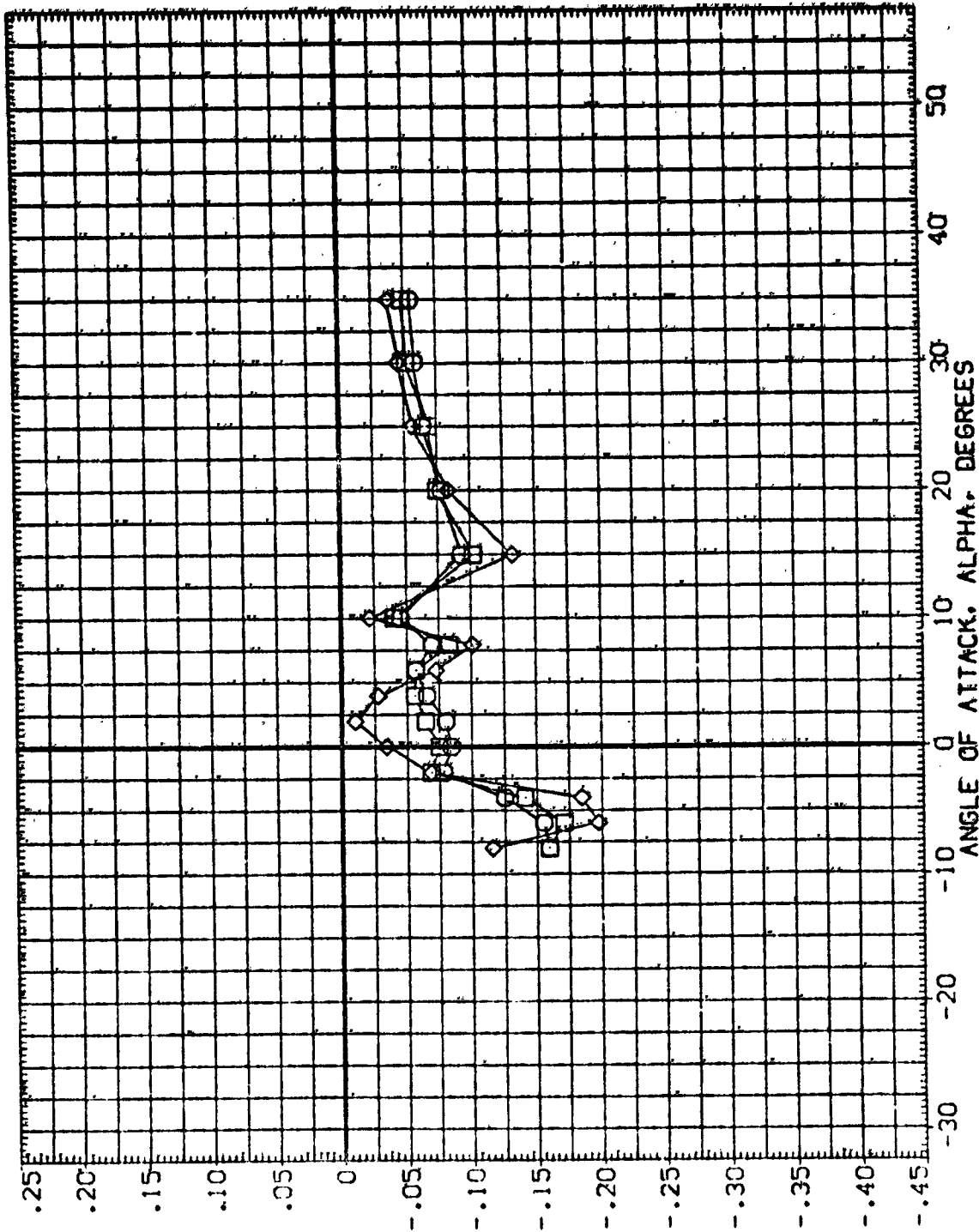
FIGURE 4f. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JEI N84

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CJA089) QIN84 LARC CFMT 118 (MA-22)
 (CJA088) QIN84 LARC CFMT 118 (MA-22)
 (CJA087) QIN84 LARC CFMT 118 (MA-22)

ELEVON NO-JET BOFLAP T/OA-1
 .000 2.000 .008 127.708
 .000 2.000 .000 95.000
 .000 2.000 .000 47.500

REFERENCE INFORMATION
 SREF 2690.0000 50. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1876.7000 IN. 10
 YMRP .0000 IN. 10
 ZMRP 375.0000 IN. 20
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, N(AF)

FIGURE 41. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N84

(A)MACH = 10.33

	2800.0000	50.00
SREF	474.8000	INCHES
LRIF	936.6800	IN. X0
LBREF	1076.7080	IN. Y0
XMRP	0.0000	IN. Z0
YMRP	375.0000	
ZMRP	.0100	
SCALE		

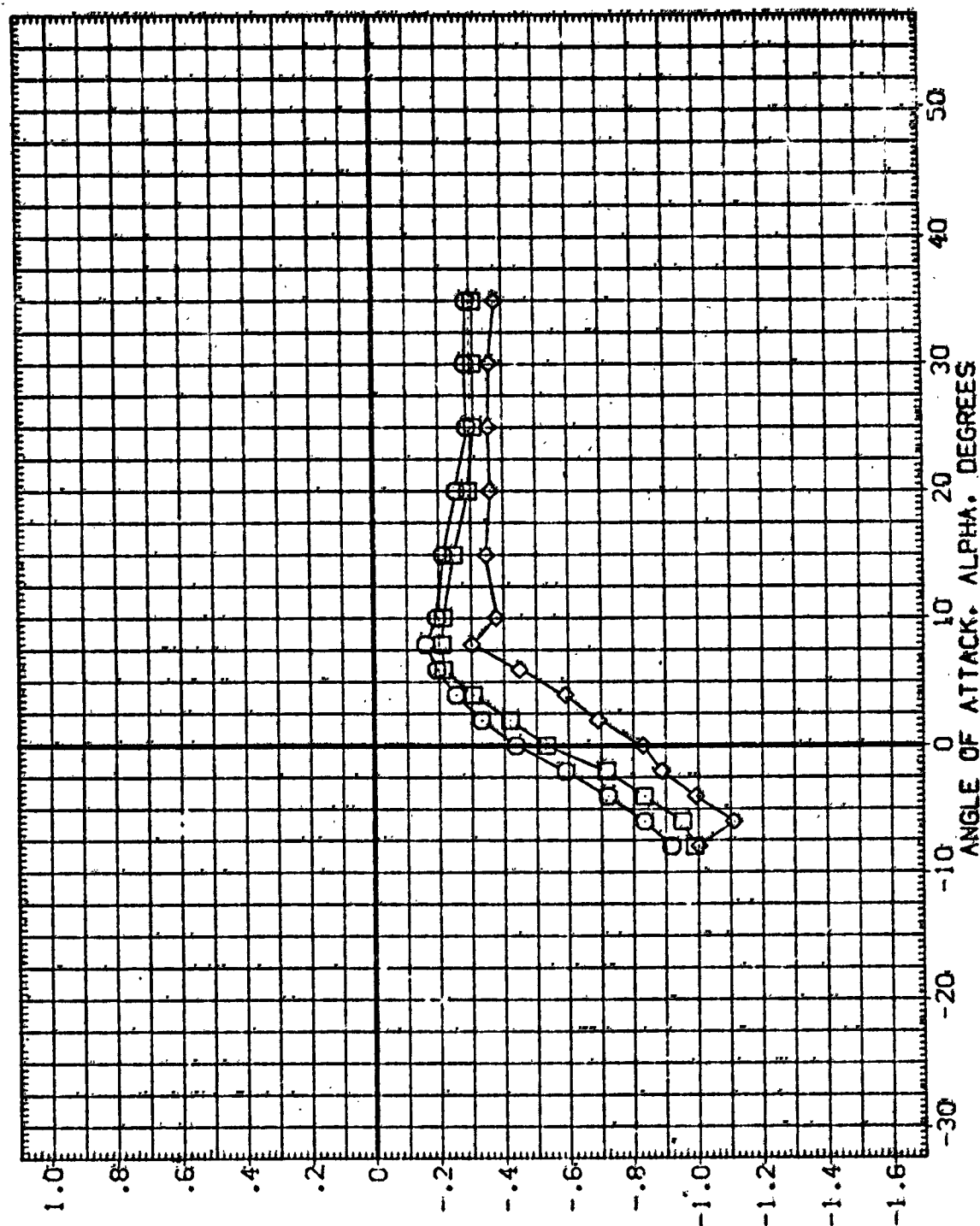


FIGURE 41. AMPLIFICATION FACTOR AS A FUNCTION OF ALPHA FOR JET N84

(A)MACH = 10.33

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(SJA012)	QJN79	LARC CFMT 118 (MA-22)
(SJA013)	QJN89	LARC CFMT 118 (MA-22)
(SJA014)	QJN83	LARC CFMT 118 (MA-22)
(XJA001)	QJN79	LARC CFMT 118 (MA-22)
(XJA002)	QJN89	LARC CFMT 118 (MA-22)
(XJA003)	QJN83	LARC CFMT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA

.000	1.000	13.750	.000
.000	2.000	13.750	.000
.000	3.000	13.750	.000
.000	1.000	.000	.000
.000	2.000	.000	.000
.000	3.000	.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SO. FT.
LREF	474.8000	INCHES
BREF	936.5800	INCHES
XMRP	1076.2000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	325.0000	IN. Z0
SCALE	.0100	

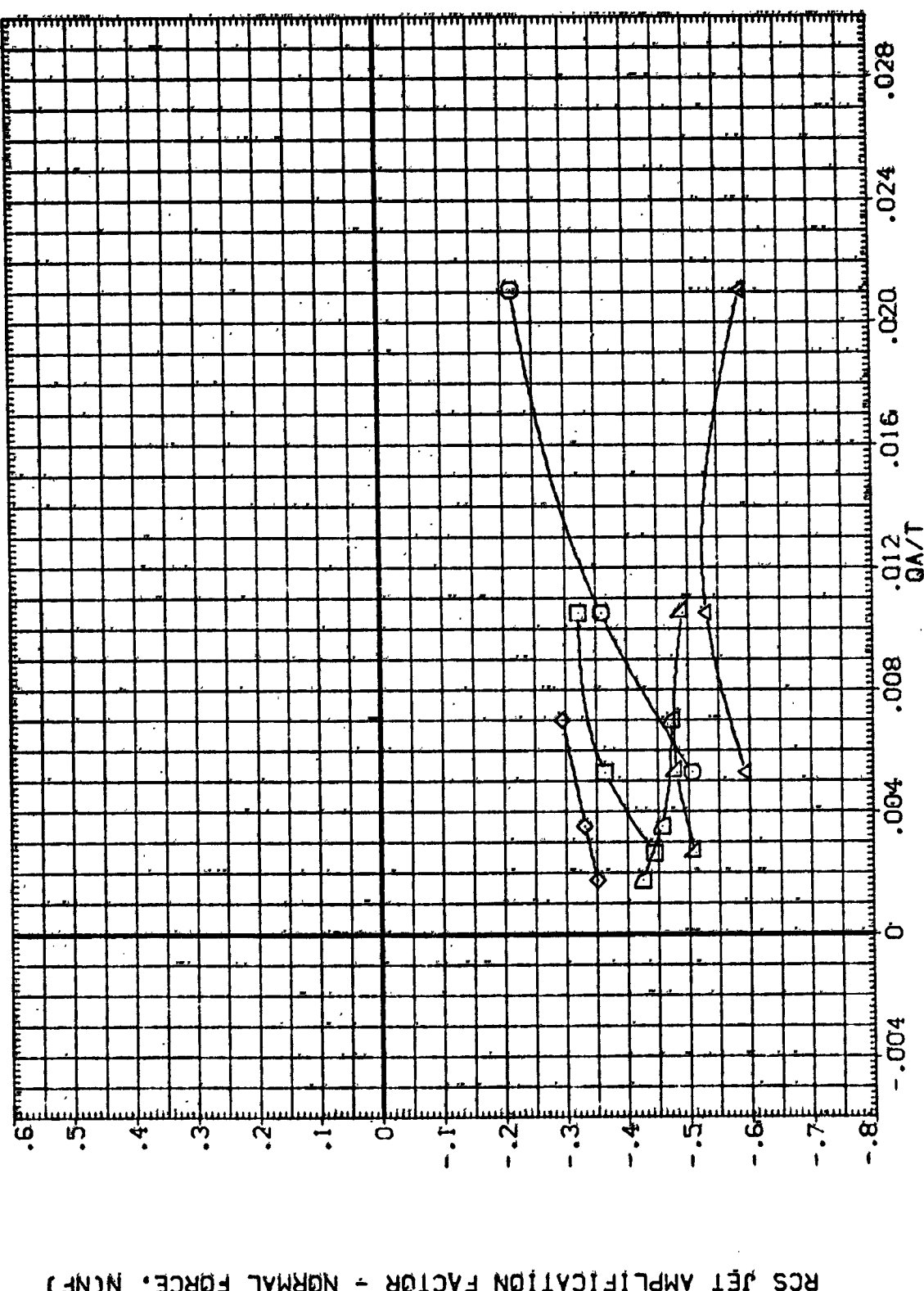


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(α) ALPHA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA012)	QIN79 LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000 SQ. FT.
(SJA013)	QIN49 LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJA014)	QIN83 LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.5800 INCHES
(XJA001)	QIN79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	XMRP 1076.7000 IN. YD
(XJA002)	QIN49 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	YMRP 375.0000 IN. YD
(XJA003)	QIN83 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	ZMRP 375.0000 IN. YD
						SCALE .0100

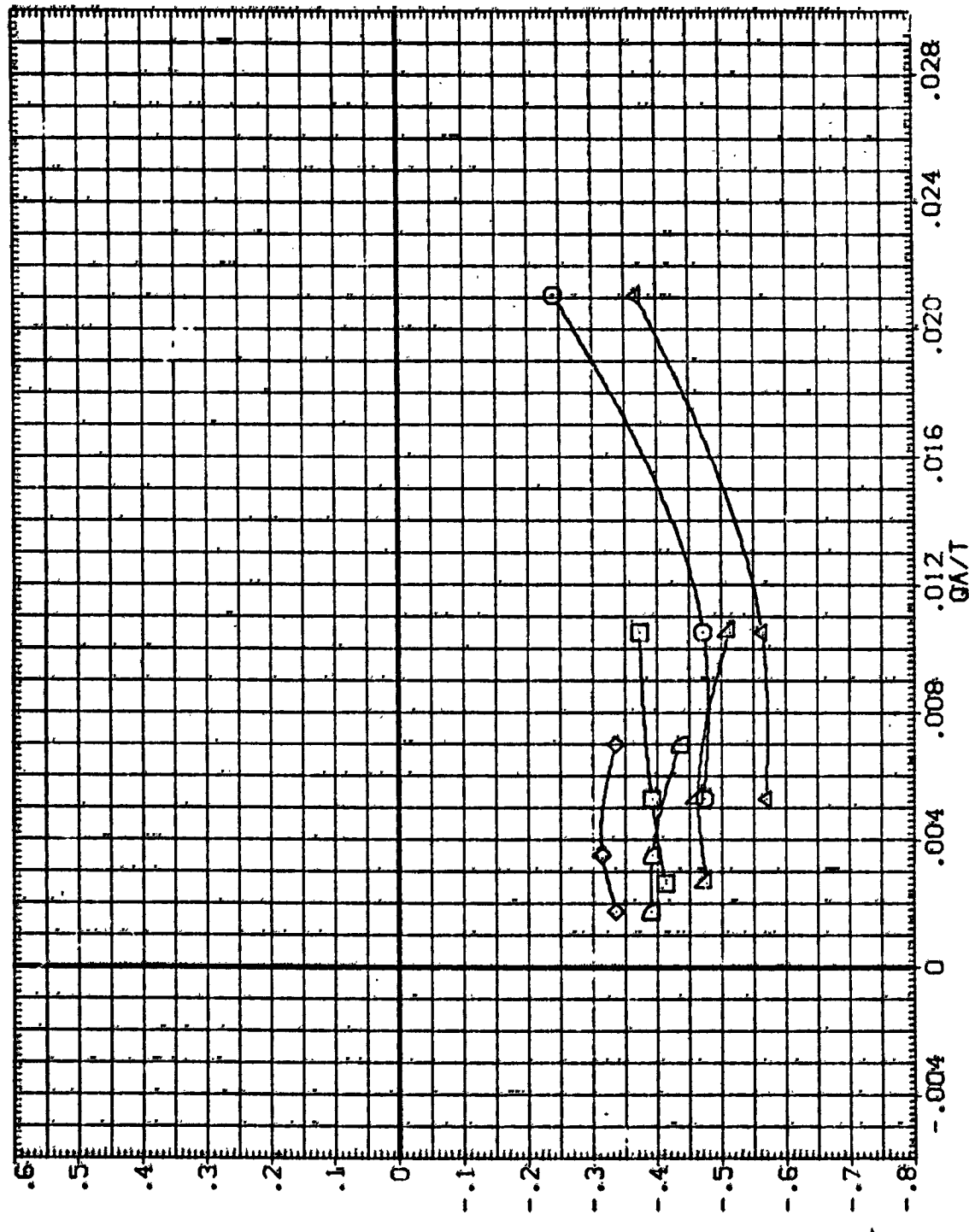


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(B)ALPHA = .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BD FLAP	BETA	REFERENCE INFORMATION
(SJA012)	01N79 LARC CFMT 118 (MA-22)	.000	1.000	13.750	.000	2690.0000 SQ. FT.
(SJA013)	01N49 LARC CFMT 118 (MA-22)	.000	2.000	13.750	.000	474.8000 INCHES
(SJA014)	01N83 LARC CFMT 118 (MA-22)	.000	3.000	13.750	.000	936.6800 INCHES
(XJA001)	01N79 LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	1076.7000 IN. VOL
(XJA002)	01N49 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	375.0000 IN. ZB
(XJA003)	01N83 LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	SCALE

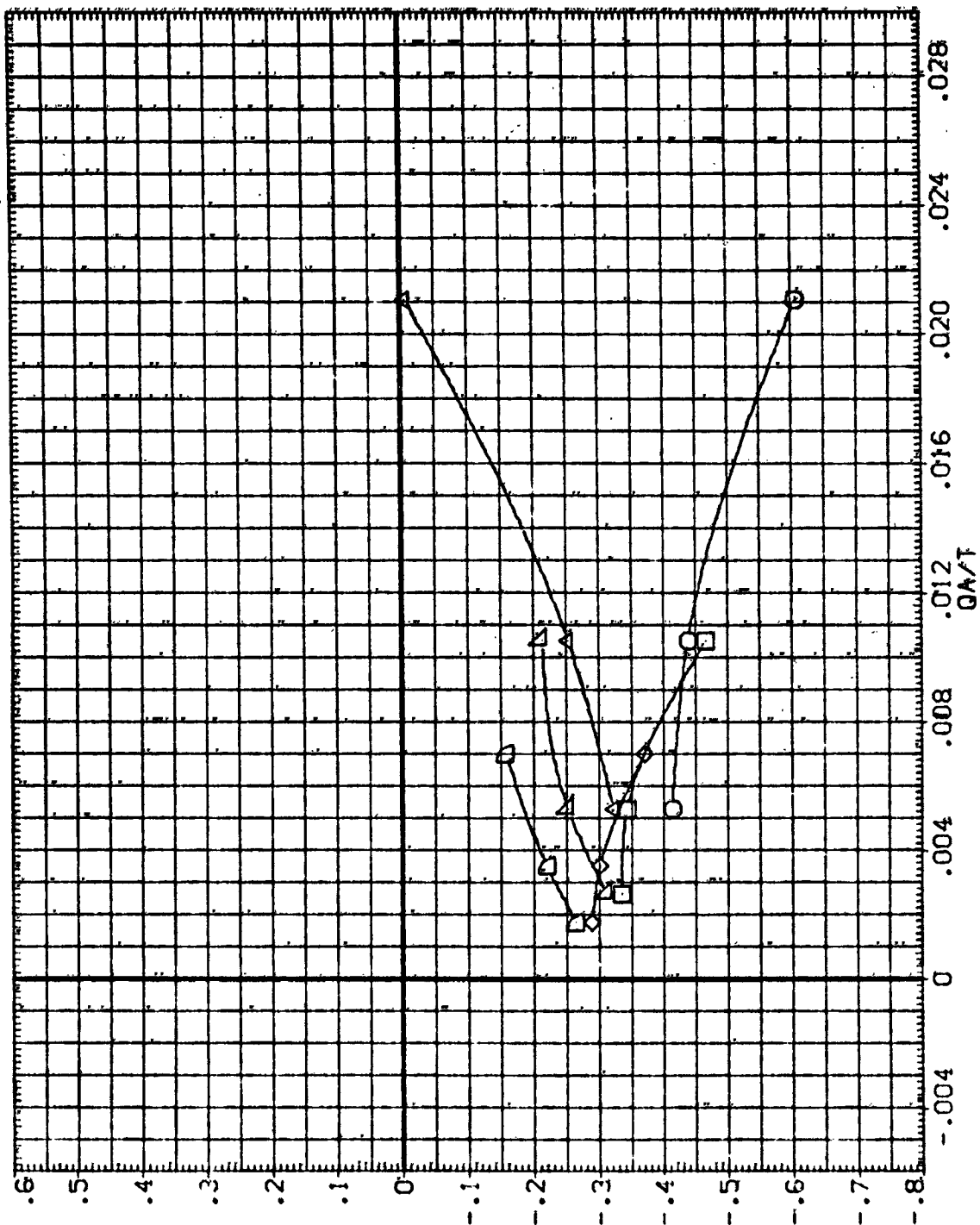


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(C) ALPHA = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BDFLAP	BETA	REFERENCE INFORMATION
(SJA021)	QIN79 LARC CFHT 118 (MA-221)	.000	1.000	13.750	.000	SREF 2690.0000 SQ.FT.
(SJA013)	QIN83 LARC CFHT 118 (MA-221)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJA014)	QIN83 LARC CFHT 118 (MA-221)	.000	3.000	13.750	.000	BREF 936.5800 INCHES
(XJA001)	QIN79 LARC CFHT 118 (MA-221)	.000	1.000	.000	.000	YMRP 1076.7000 IN. YD
(XJA002)	QIN48 LARC CFHT 118 (MA-221)	.000	2.000	.000	.000	YMRP 375.0000 IN. YD
(XJA003)	QIN83 LARC CFHT 118 (MA-221)	.000	3.000	.000	.050	ZMRP 375.0000 IN. ZD
						SCALE .0100

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, (NMF)

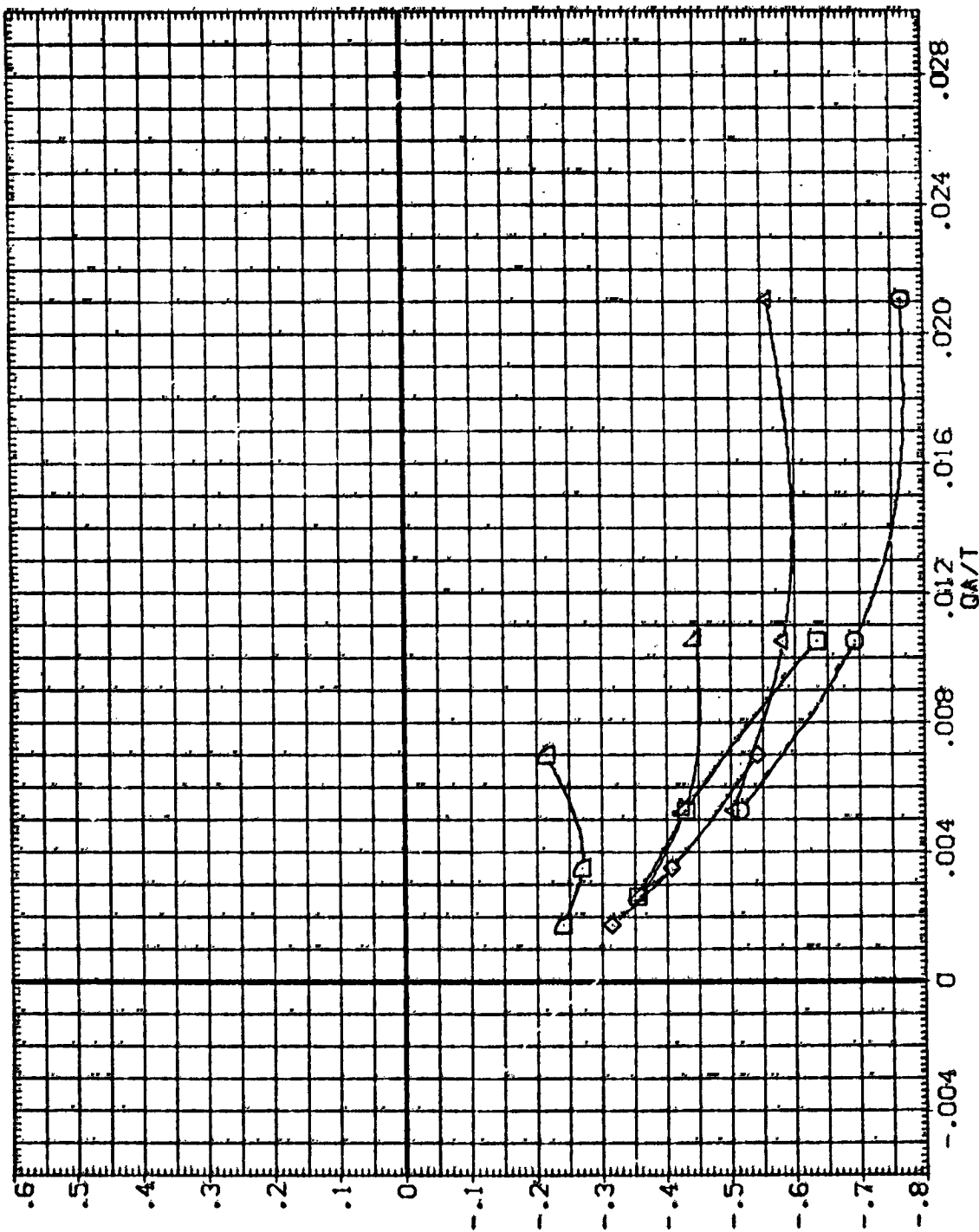


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR. JETS N79, N49, N83

(CO)ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BD FLAP	BETA	REFERENCE INFORMATION
(SIA012)	QIN79 LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000 SO.FT.
(SIA013)	QIN49 LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SIA014)	QIN83 LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6800 IN. X0
(SIA001)	QIN79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	XMRP 1076.7000 IN. Y0
(SIA002)	QIN49 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	YMRP 375.0000 IN. Z0
(SIA003)	QIN83 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	SCALE .0100

RCS JET AMPLIFICATION FACTOR - NORMAL FORCE, (NCF)

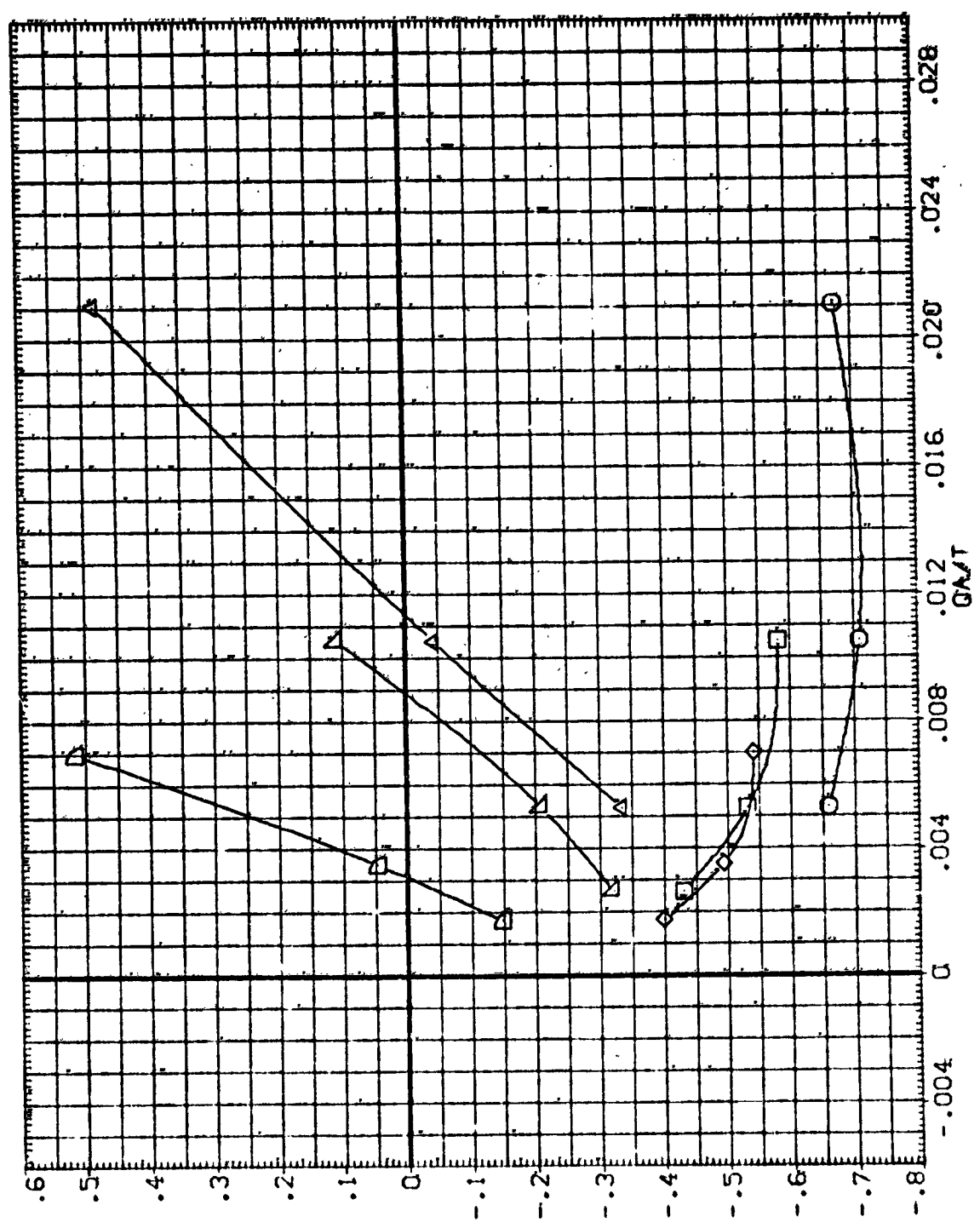


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(E) ALPHA = 15.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(SJA012)	QIN79	LARC CFMT 118 (MA-22)	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION	SO. FT.
(SJA013)	QIN48	LARC CFMT 118 (MA-22)	.000	1.000	13.750	.000	SREF	2690.0000
(SJA014)	QIN83	LARC CFMT 118 (MA-22)	.000	2.000	13.750	.000	LREF	474.8000
(XJA001)	QIN79	LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	BREF	936.6800
(XJA002)	QIN48	LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	XMRP	1076.7000
(XJA003)	QIN83	LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	YMRP	.0000
			.000		.000	.000	ZMRP	375.0000
							SCALE	.0100

RCS JET AMPLIFICATION FACTOR = PITCH, (NPM)

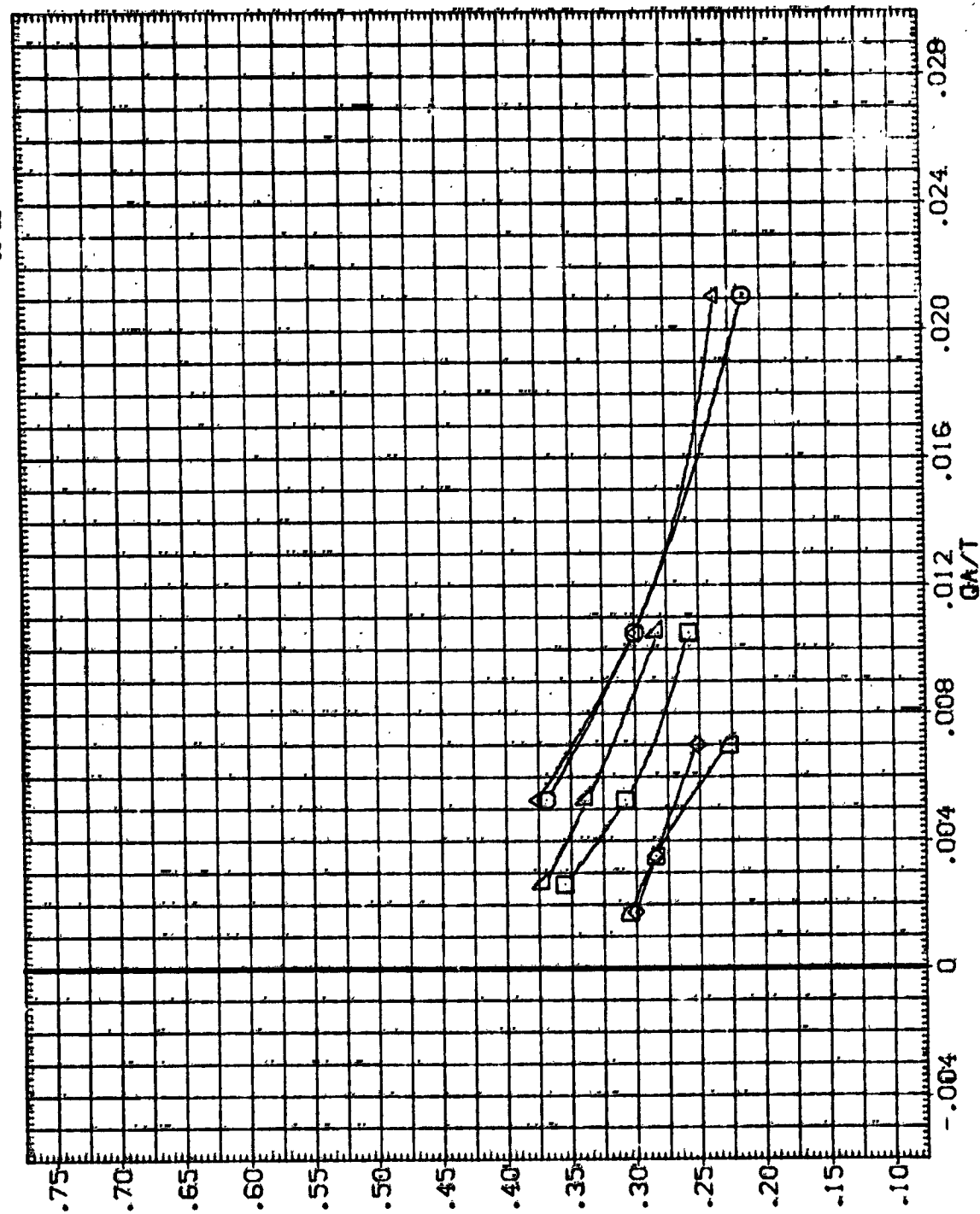


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(α)ALPHA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	N2 JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA012)	QIN09 LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000 SO.FT.
(SJA013)	QIN49 LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJA014)	QIN83 LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6800 INCHES
(SJA021)	QIN79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	YMRP 1076.2000 IN. Y0
(SJA022)	QIN49 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	ZMRP 375.0000 IN. Z0
(SJA003)	QIN83 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	SCALE .0100

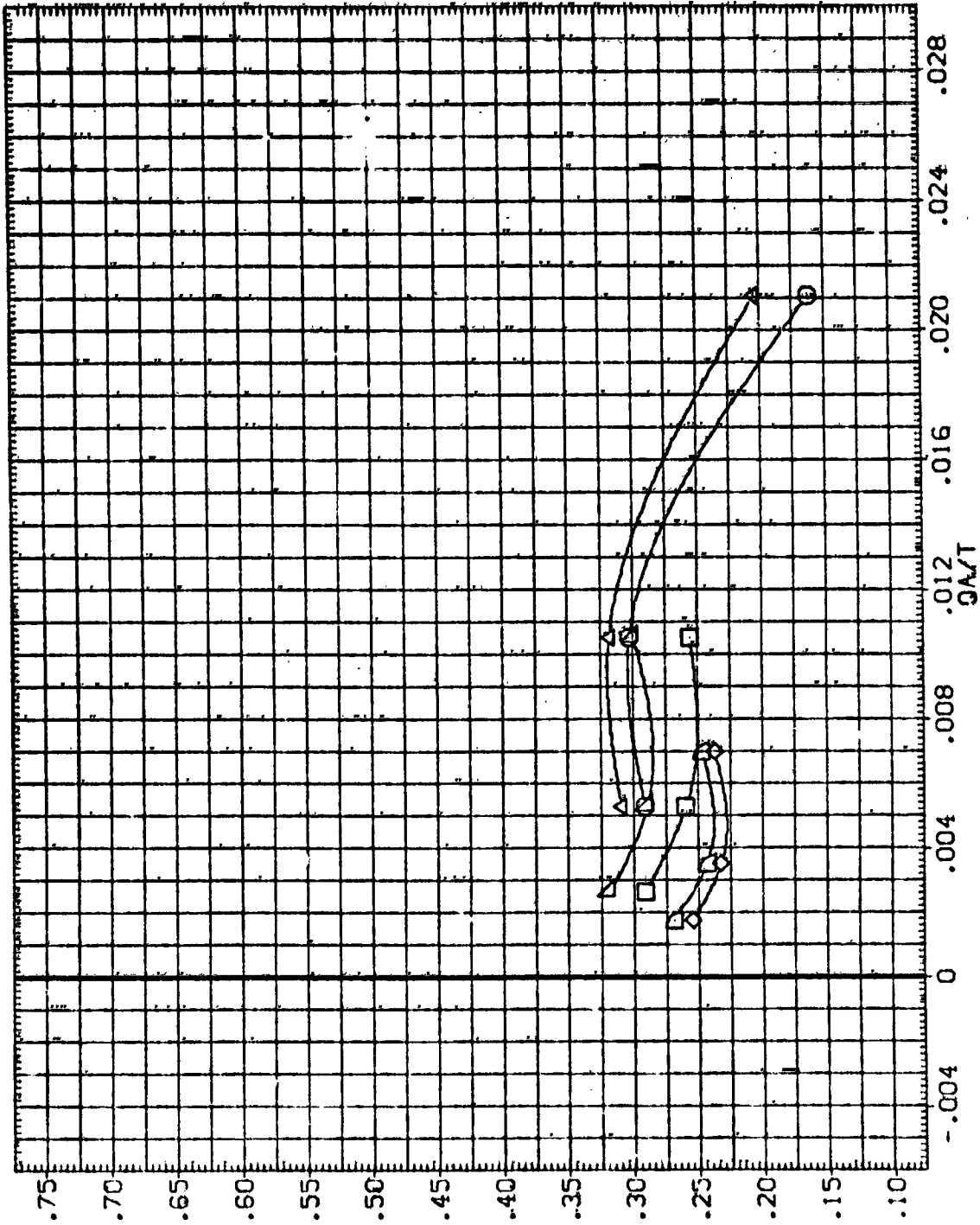


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79,N49,N83

(B) ALPHA = .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA012)	LARC CFMT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000
(SJA013)	LARC CFMT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000
(SJA014)	LARC CFMT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6800
(XJA001)	LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	XMREF 1076.7000
(XJA002)	LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	YMREF 375.0000
(XJA003)	LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	ZMREF 375.0000
						SCALE .0100

RCS JET AMPLIFICATION FACTOR - PITCH. (NPM)

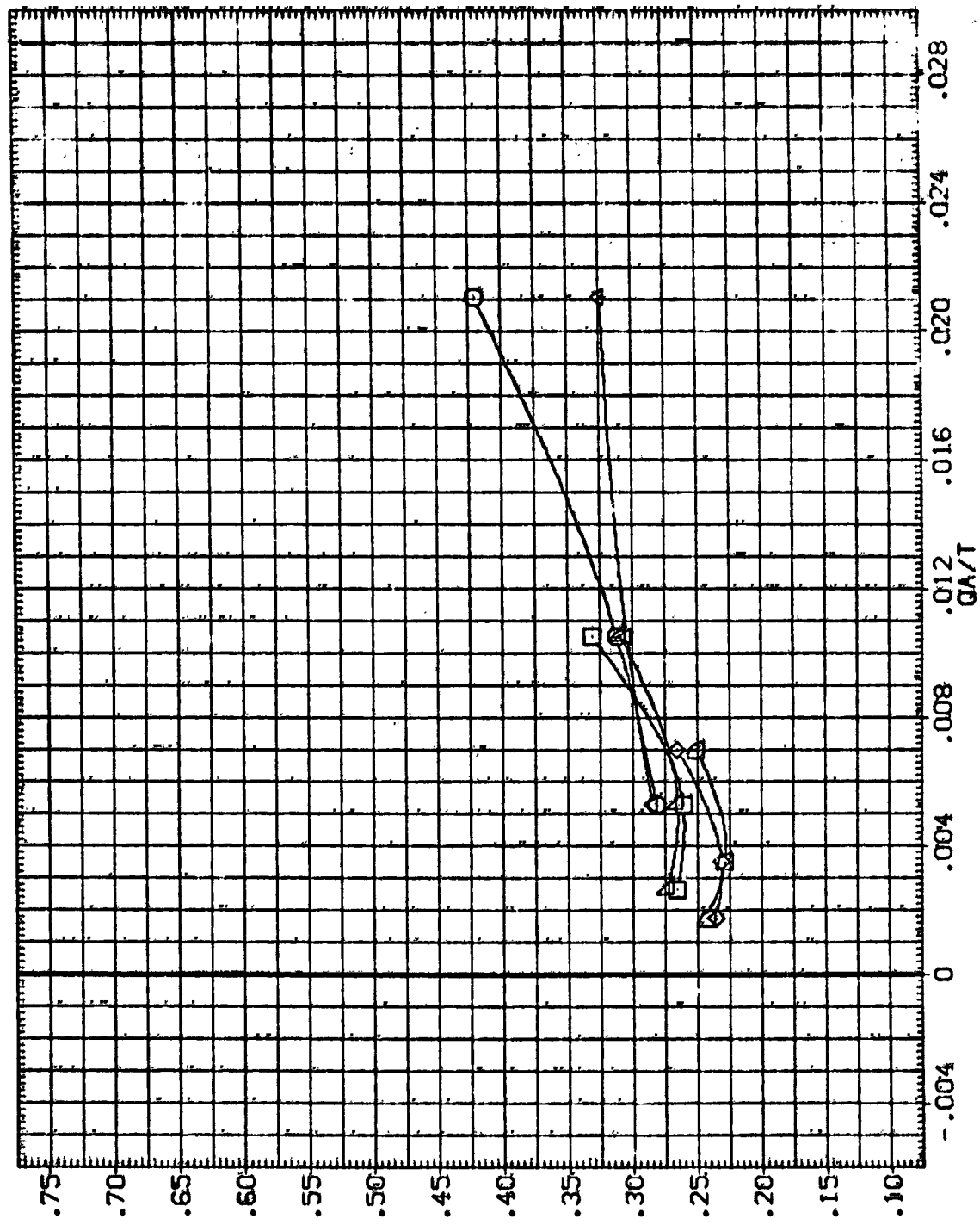


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(CJALPHA = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BDFLAP	BETA	REFERENCE INFORMATION	SO. FT.
(SJA012)	LARC CFMT 118 (NA-22)	.000	1.000	13.750	.000	SREF	2690.0000
(SJA013)	LARC CFMT 118 (NA-22)	.000	2.000	13.750	.000	LREF	474.8000
(SJA014)	LARC CFMT 118 (NA-22)	.000	3.000	13.750	.000	BREF	936.6800
(XJA001)	LARC CFMT 118 (NA-22)	.000	1.000	.000	.000	XMRP	1076.7000
(XJA002)	LARC CFMT 118 (NA-22)	.000	2.000	.000	.000	YMRP	.0000
(XJA003)	LARC CFMT 118 (NA-22)	.000	3.000	.000	.000	ZMRP	375.0000
						SCALE	.0100

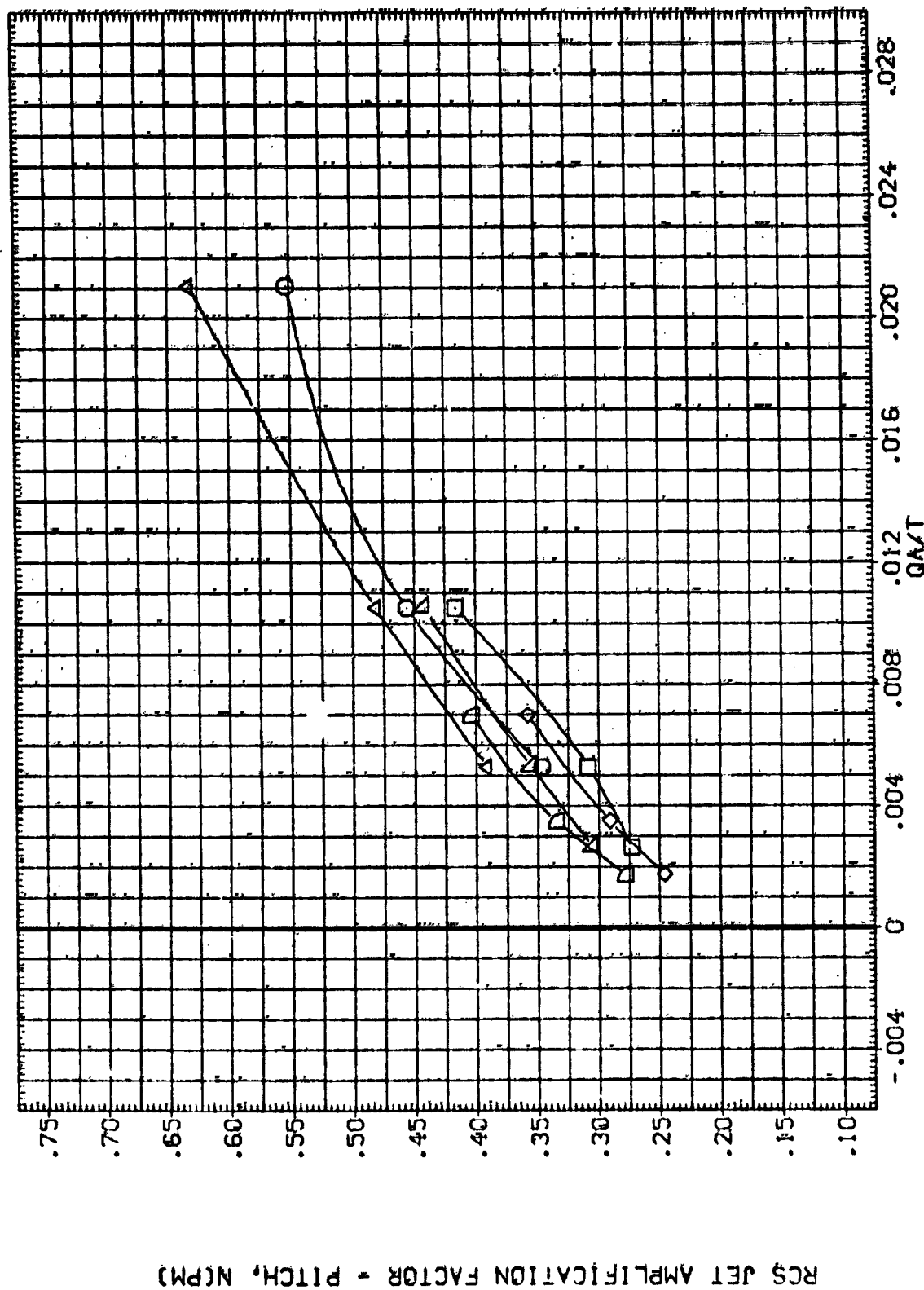


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR. JETS N79, N49, N83

(O) ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA012)	LARE CFHT 118 (MA-221)	.000	1.000	13.750	.000	SREF 2690.0000
(SJA013)	LARE CFHT 118 (MA-222)	.000	2.000	13.750	.000	LREF 474.8000
(SJA014)	LARE CFHT 118 (MA-223)	.000	3.000	13.750	.000	BREF 936.6800
(SJA001)	LARE CFHT 118 (MA-221)	.000	1.000	.000	.000	XREF 1076.7000
(SJA002)	LARE CFHT 118 (MA-222)	.000	2.000	.000	.000	YREF .0000
(SJA003)	LARE CFHT 118 (MA-223)	.000	3.000	.000	.000	ZREF 375.0000
						SCALE .0100

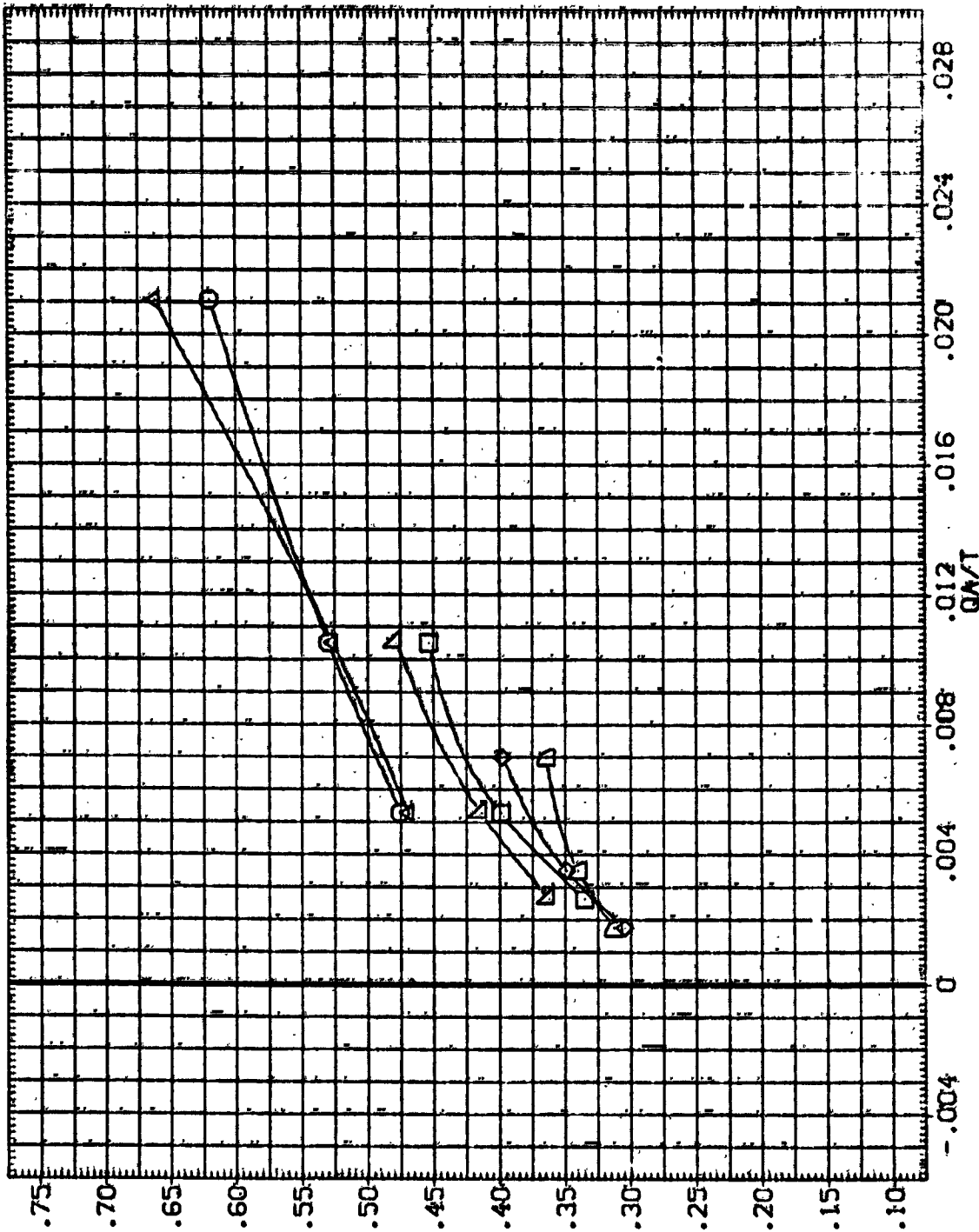


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR. JETS N79, N49, N83

(E) ALPHA = 35.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BD FLAP	BETA	REFERENCE INFORMATION
(SJA002)	LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000 SO.FT.
(SJA013)	LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJA014)	LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF 998.6800 INCHES
(XJA001)	LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	YMRP 1076.7000 IN. YD.
(XJA002)	LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	ZMRP 375.0000 IN. YD.
(XJA003)	LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	SCALE .0100

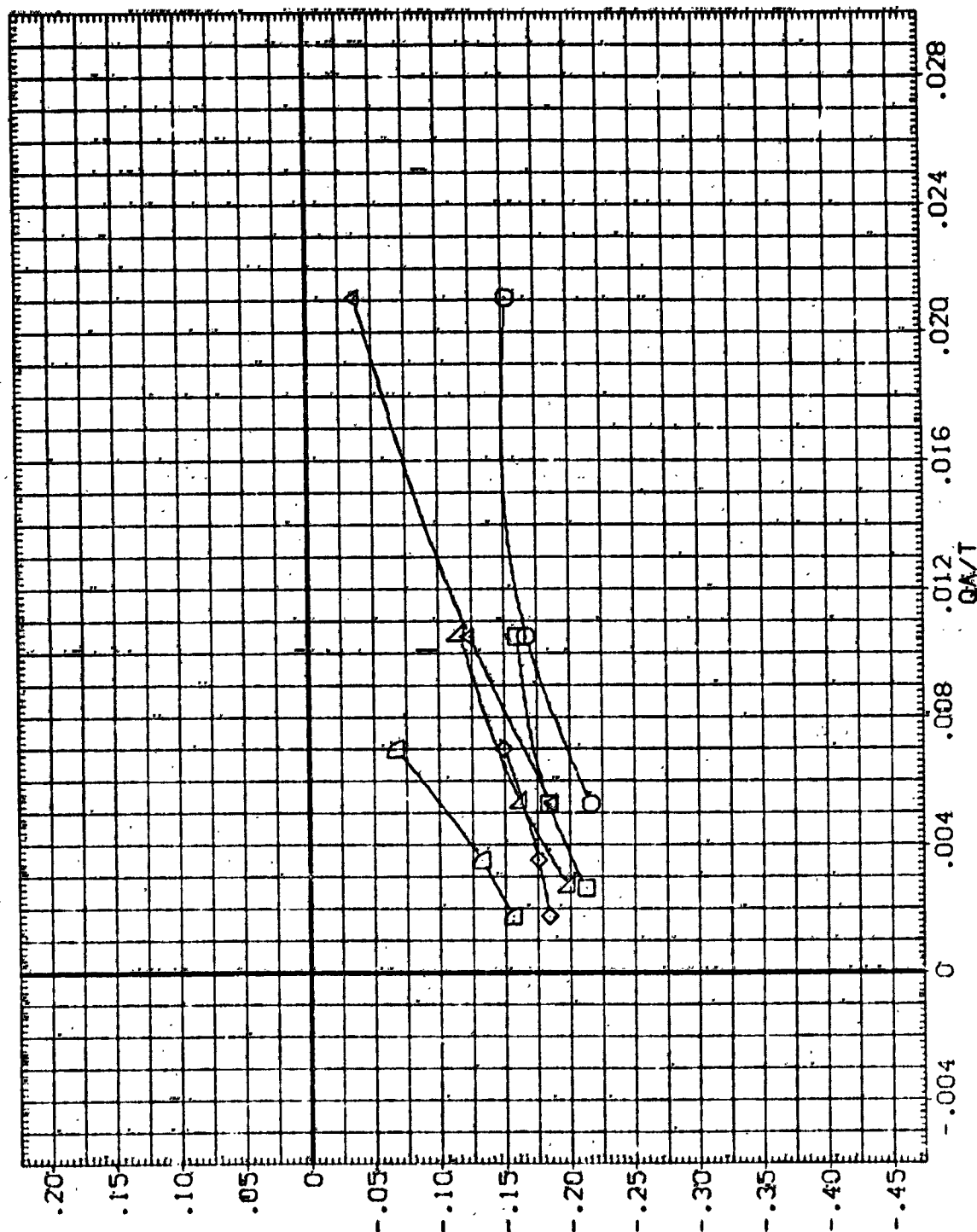


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(A) ALPHA = -8.00

RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCAF

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	NO. JET	BBFLAP	BETA	REFERENCE INFORMATION
(SJA012)	LARC CFHT 118 (NA-22)	.000	1.000	13.750	.000	SREF 2696.0000 SQ. FT.
(SJA013)	LARC CFHT 118 (NA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJA014)	LARC CFHT 118 (NA-22)	.000	3.000	13.750	.000	BREF 936.6800 INCHES
(XJA001)	LARC CFHT 118 (NA-22)	.000	1.000	.000	.000	XMRP 1076.7000 IN. YD
(XJA002)	LARC CFHT 118 (NA-22)	.000	2.000	.000	.000	ZMRP .0000 IN. YD
(XJA003)	LARC CFHT 118 (NA-22)	.000	3.000	.000	.000	SCALE .0100

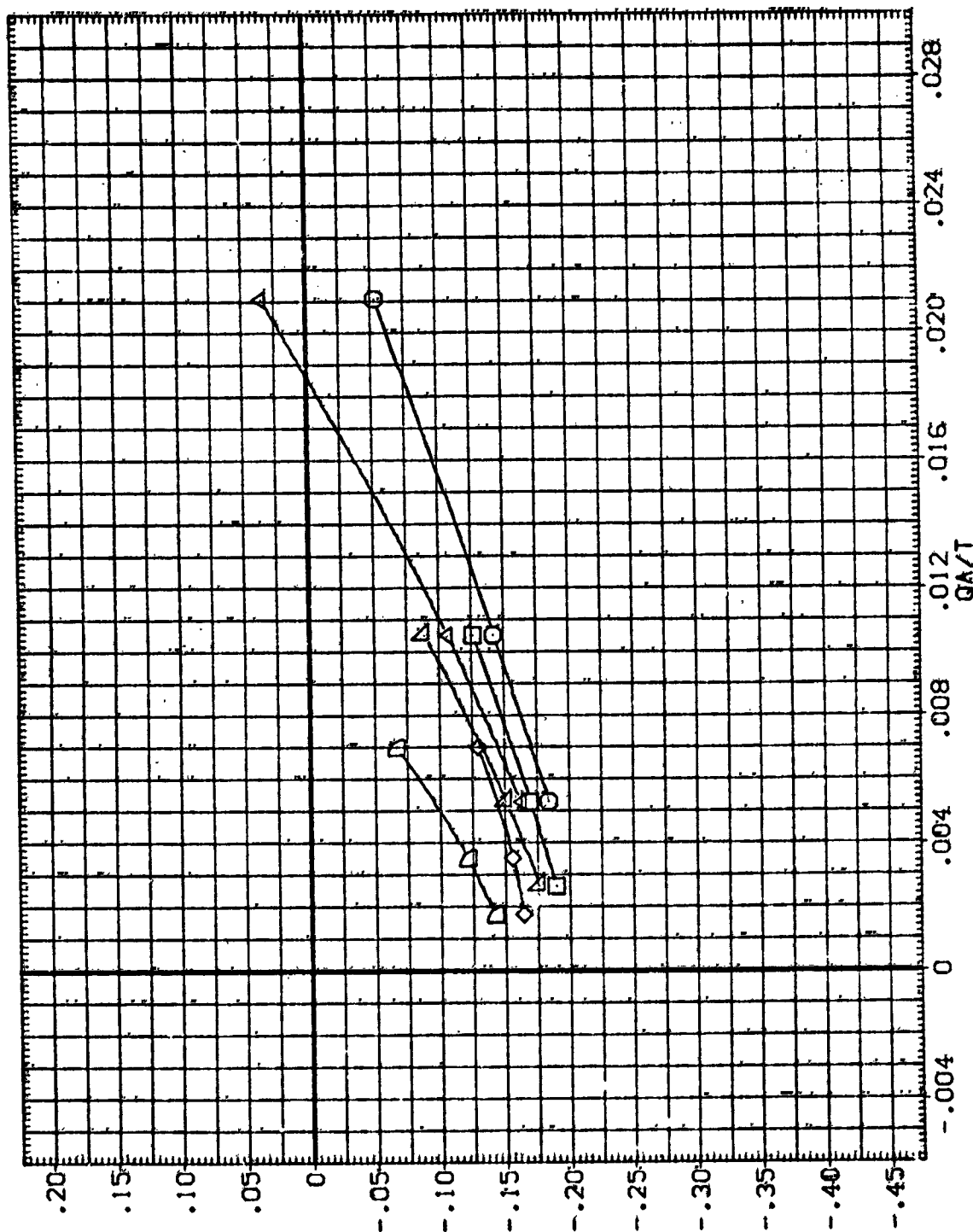


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(B) ALPHA = .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BDFLAP	BETA	REFERENCE INFORMATION	SQ. FT.
(SJA012)	GRN79 LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF	2690.0000
(SJA013)	GRN49 LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF	474.8000
(SJA014)	GRN83 LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF	936.6000
(XJA001)	GRN79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	YMRA	1076.7000
(XJA002)	GRN49 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	ZMRA	375.0000
(XJA003)	GRN83 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	SCALE	.0100

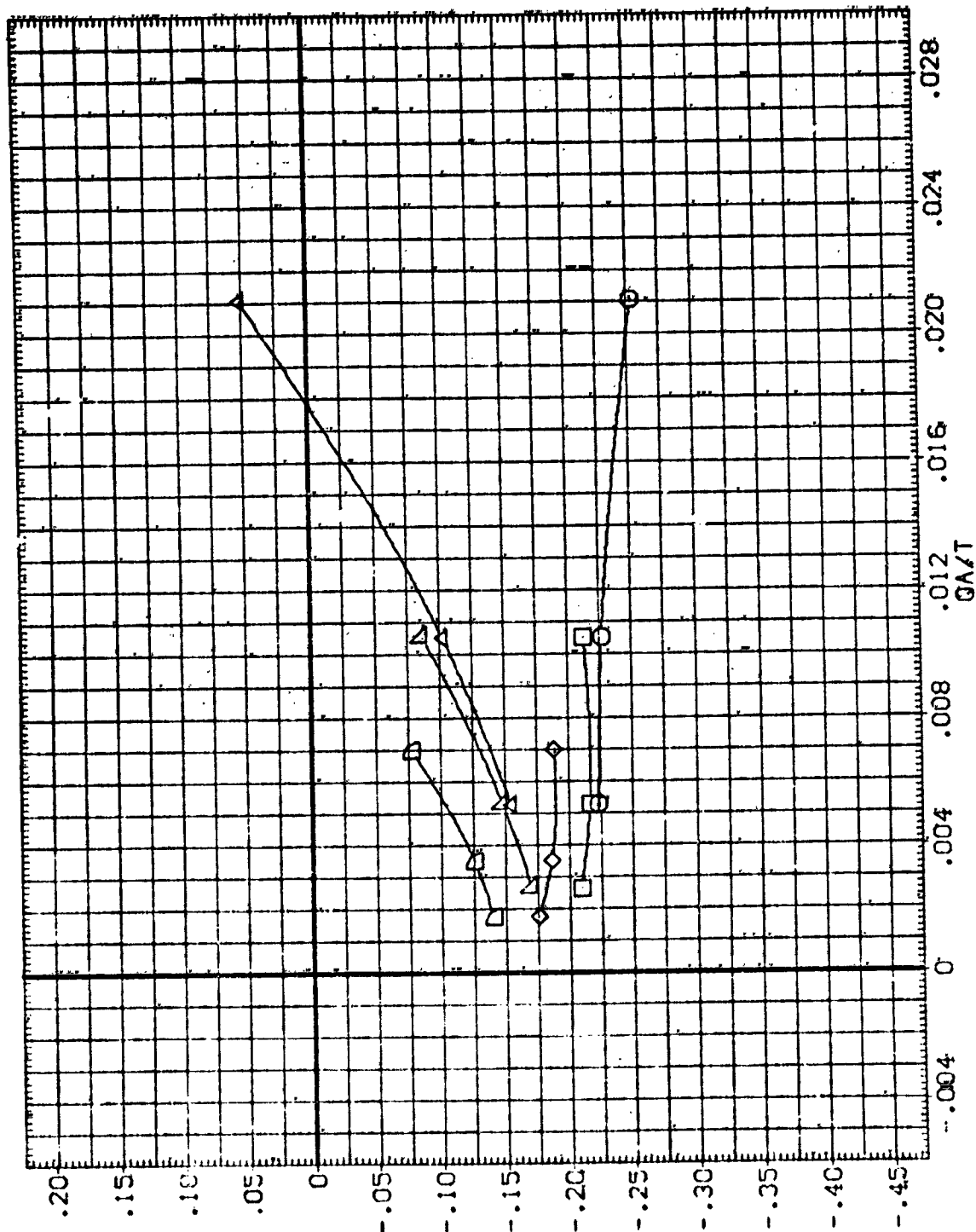


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79,N49,N83

(C)ALPHA = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA012)	GIN79 LARC CFHT 118 (NA-22)	.000	1.000	13.750	.000	SREF 2690.0000 SQ. FT.
(SJA013)	GIN49 LARC CFHT 118 (NA-22)	.000	2.000	13.750	.000	LREF 474.8600 INCHES
(SJA014)	GIN83 LARC CFHT 118 (NA-22)	.000	3.000	13.750	.000	BREF 936.6800 INCHES
(XJA001)	GIN79 LARC CFHT 118 (NA-22)	.000	1.000	.000	.000	XMRP 1076.7000 IN. X0
(XJA002)	GIN49 LARC CFHT 118 (NA-22)	.000	2.000	.000	.000	YMRP .0800 IN. Y0
(XJA003)	GIN83 LARC CFHT 118 (NA-22)	.000	3.000	.000	.000	ZMRP 373.6000 IN. Z0
						SCALE .0100

RCS JET AMPLIFICATION FACTOR - AXIAL FORCE, NCAF

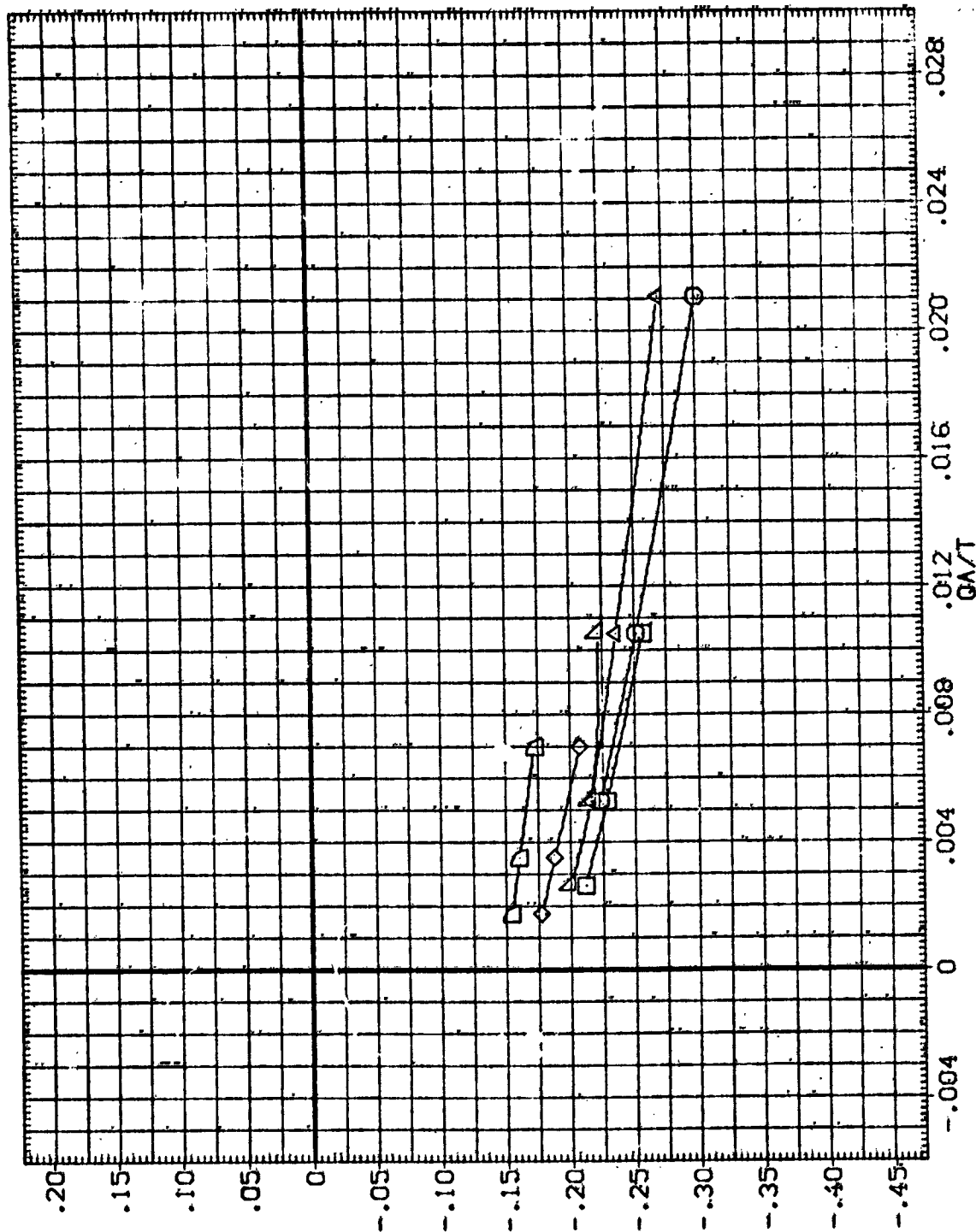


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(α) ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA012)	QIN79 LARC CFMT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000 SQ.FT.
(SJA013)	QIN49 LARC CFMT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJA014)	QIN83 LARC CFMT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6800 IN. X0
(XJA001)	QIN79 LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	XMRP 1076.7000 IN. Y0
(XJAG02)	QIN49 LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	YMRP .0800 IN. Z0
(XJAG03)	QIN83 LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	ZMRP 375.3000 IN. Z0
						SCALE .0100

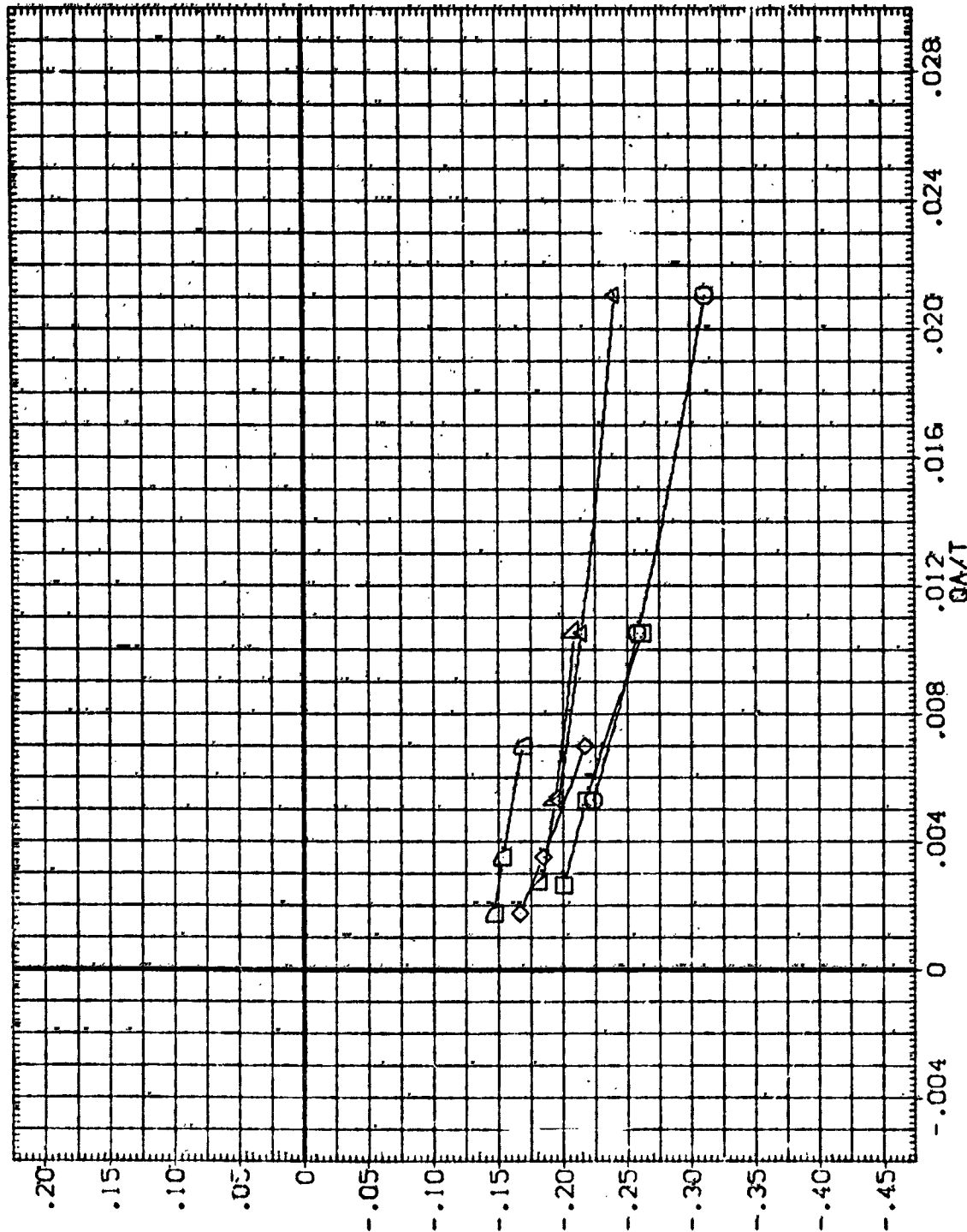


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR. JETS N79, N49, N83

(E)ALPHA = 35.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BD FLAP	BETA	REFERENCE INFORMATION
(SJA012)	LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2590.0000 SQ. FT.
(SJA013)	LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJA014)	LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6800 INCHES
(XJA001)	LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	YMRP 1076.7000 IN. YD
(XJA002)	LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	ZMRP 375.0000 IN. ZD
(XJA003)	LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	SCALE

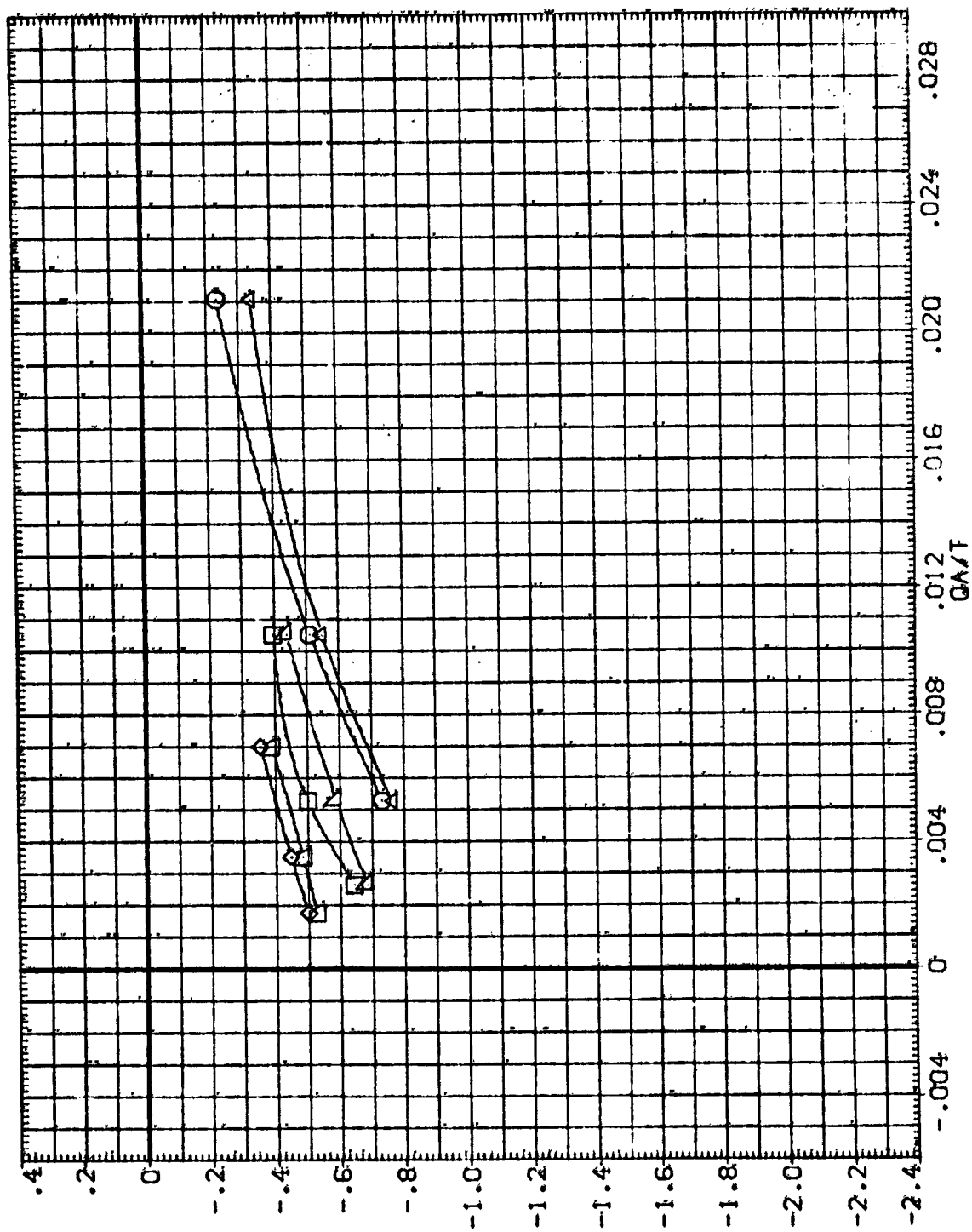


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(A) ALPHA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BDFLAP	BETA	REFERENCE INFORMATION
(SJAQ12)	GIN79 LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000 SQ. FT.
(SJAQ13)	GIN49 LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJAQ14)	GIN80 LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6800 INCHES
(XJAC01)	GIN79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	XMRP 1076.7000 IN. YD
(XJAC02)	GIN49 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	ZMRP .0000 IN. YD
(XJAC03)	GIN80 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	SCALE 375.0000 IN. YD

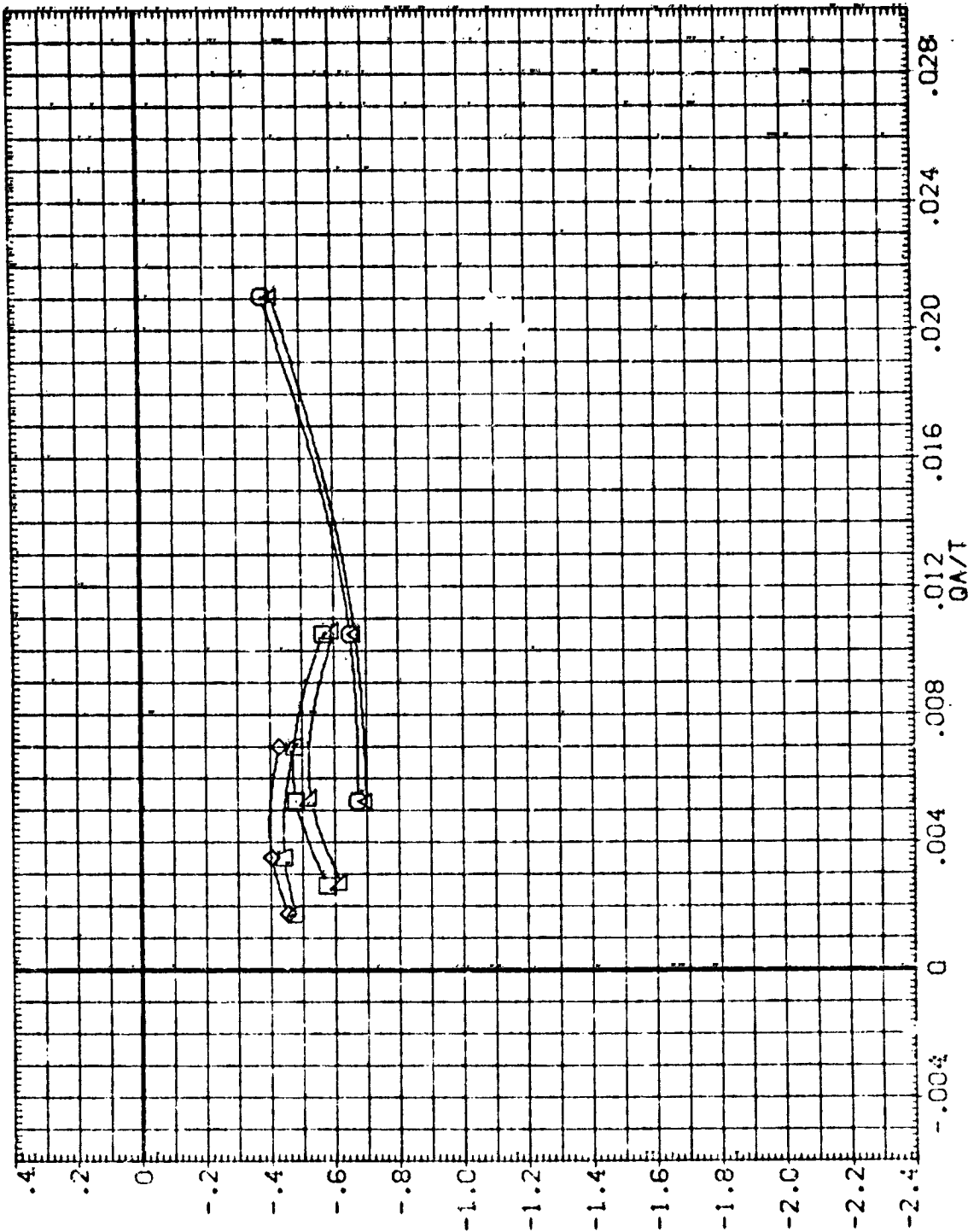


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(B) ALPHA = .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION	SCALE
(SJA012)	GIN79 LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000	SC.F.T.
(SJA013)	GIN79 LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000	INCHES
(SJA014)	GIN83 LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6000	INCHES
(XJA001)	GIN79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	XMRP 1076.7000	IN. YD
(XJA002)	GIN49 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	MRP .0000	IN. YD
(XJA003)	GIN83 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	ZMRP 375.0000	IN. YD
						SCALE .0100	

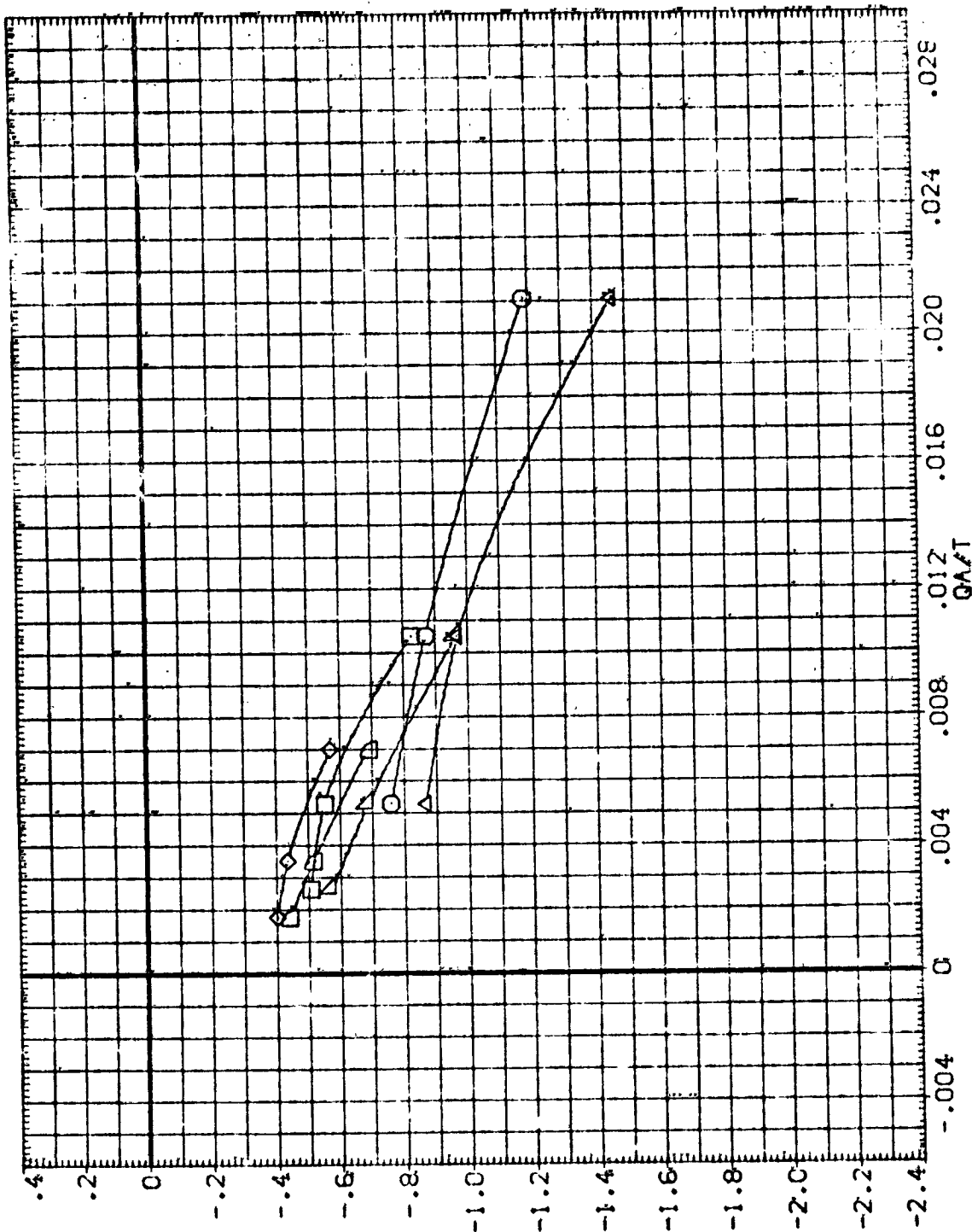


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79,N49,N83

(CYALPHA = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA022)	01N79 LARC CFMT 118 (MA-22)	.000	1.000	13.750	.000	2690.0000 SO.FT.
(SJA013)	01N49 LARC CFMT 118 (MA-22)	.000	2.000	13.750	.000	474.8000 INCHES
(SJA014)	01N87 LARC CFMT 118 (MA-22)	.000	3.000	13.750	.000	936.6800 INCHES
(SJA001)	01N79 LARC CFMT 118 (MA-22)	.070	1.000	.000	.000	1076.7080 IN. Y0
(XPA002)	01N49 LARC CFMT 118 (MA-22)	.000	2.000	.060	.000	375.0000 IN. Y0
(XPA003)	01N87 LARC CFMT 118 (MA-22)	.860	3.000	.000	.000	SCALE .0100

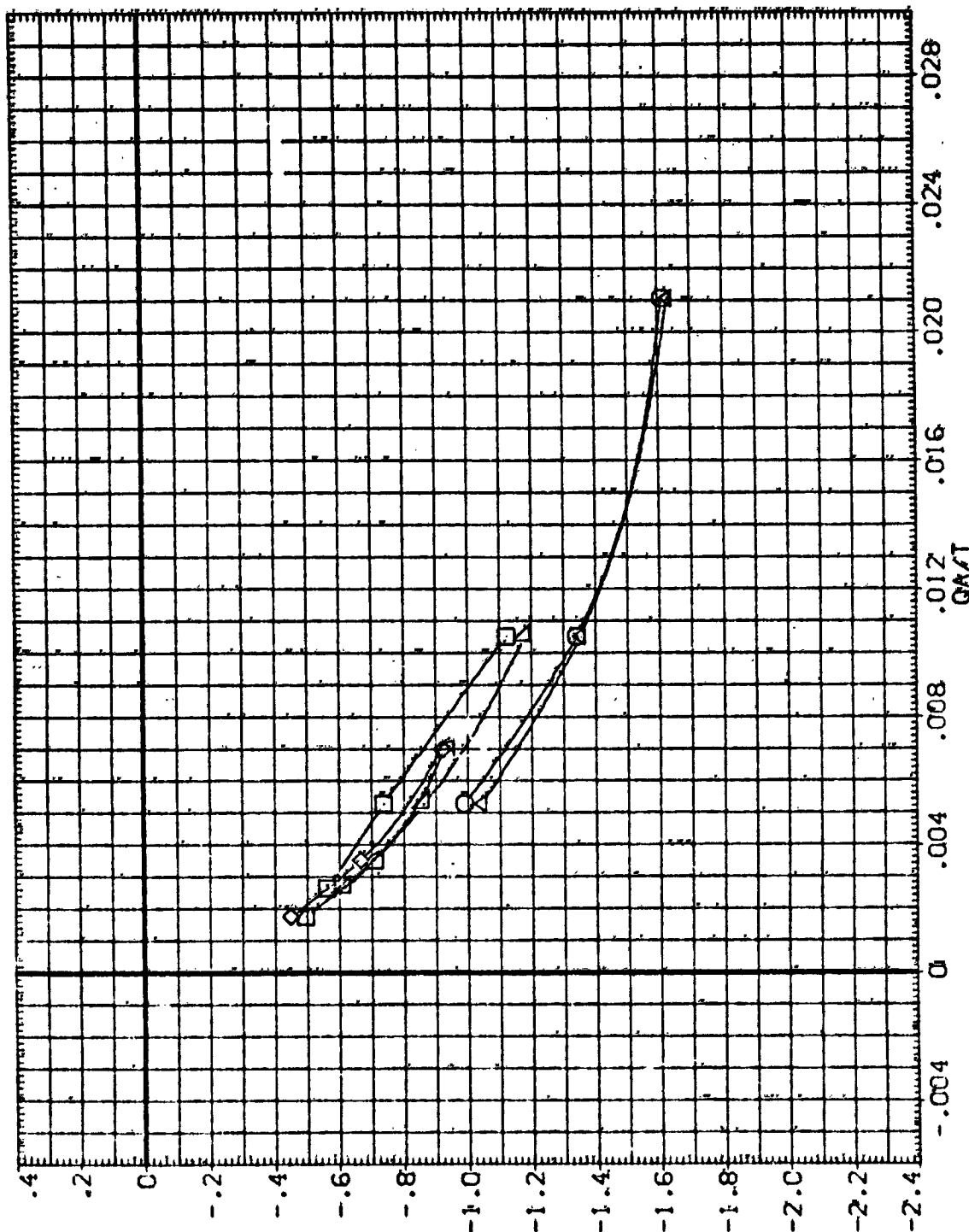


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(O) ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	80° FLAP	BETA	REFERENCE INFORMATION
(SJA012)	Q1N79 LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000 SD.FT.
(SJA013)	Q1N43 LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJA014)	Q1N83 LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6800 INCHES
(XJA001)	Q1N79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	1076.7000 IN. X0
(XJA002)	Q1N43 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	YMRP .0000 IN. Y0
(XJA003)	Q1N83 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	ZMRP 375.0000 IN. Z0
						SCALE .0100

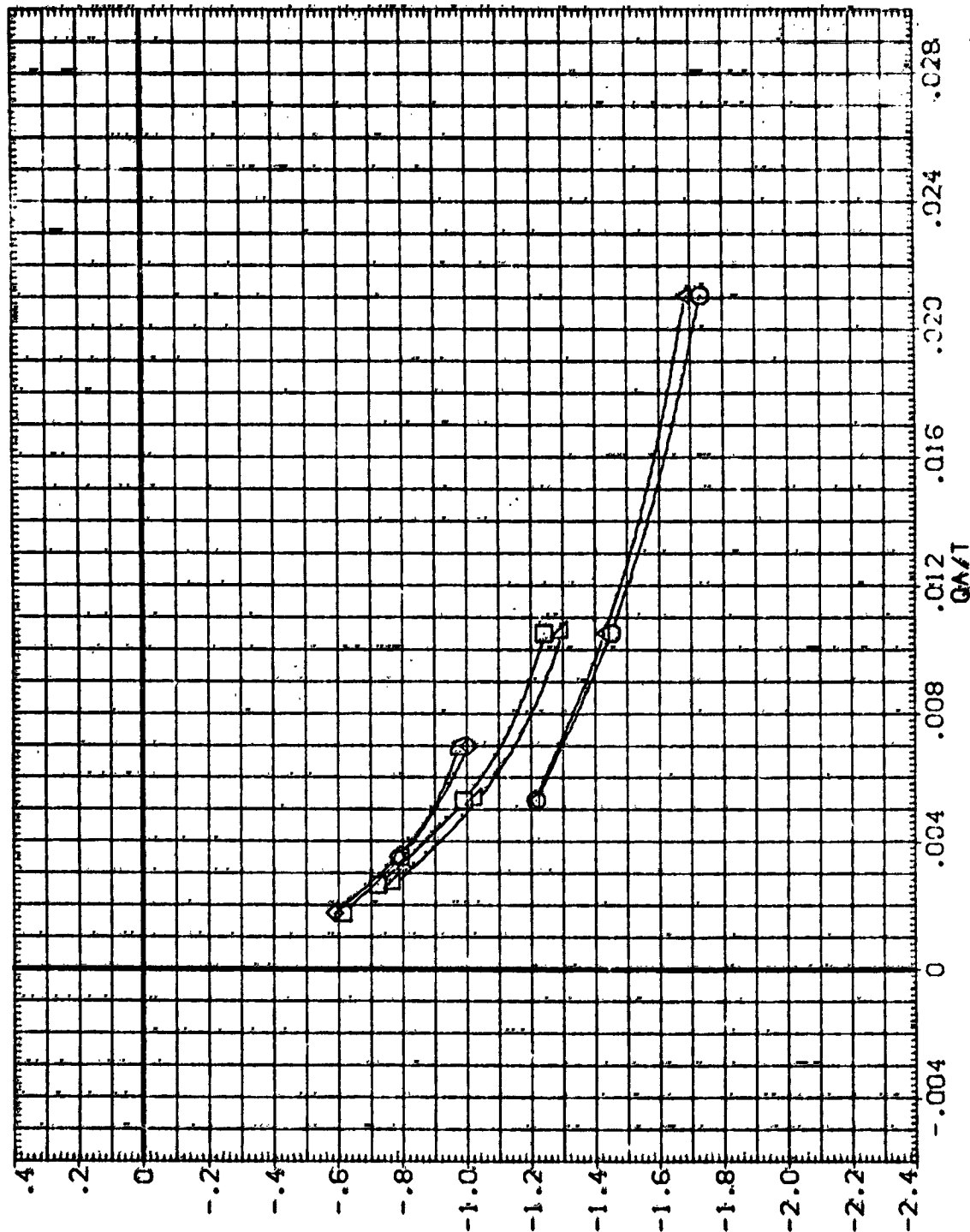


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR. JETS N79, N49, N83

(E) ALPHA = 35.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NZ-JET	BD-FLAP	BETA	REFERENCE INFORMATION
(SJA021)	LARC CFMT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2680.0000 SD-FT.
(SJA013)	LARC CFMT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJA014)	LARC CFMT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6800 INCHES
(SJA001)	LARC CFMT 118 (MA-22)	.000	1.000	.000	.000	VMRP 1076.7000 IN. X0
(SJA002)	LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	VMRP .0000 IN. Y0
(SJA003)	LARC CFMT 118 (MA-22)	.000	3.000	.000	.000	VMRP 375.0000 IN. Z0
						SCALE .0100

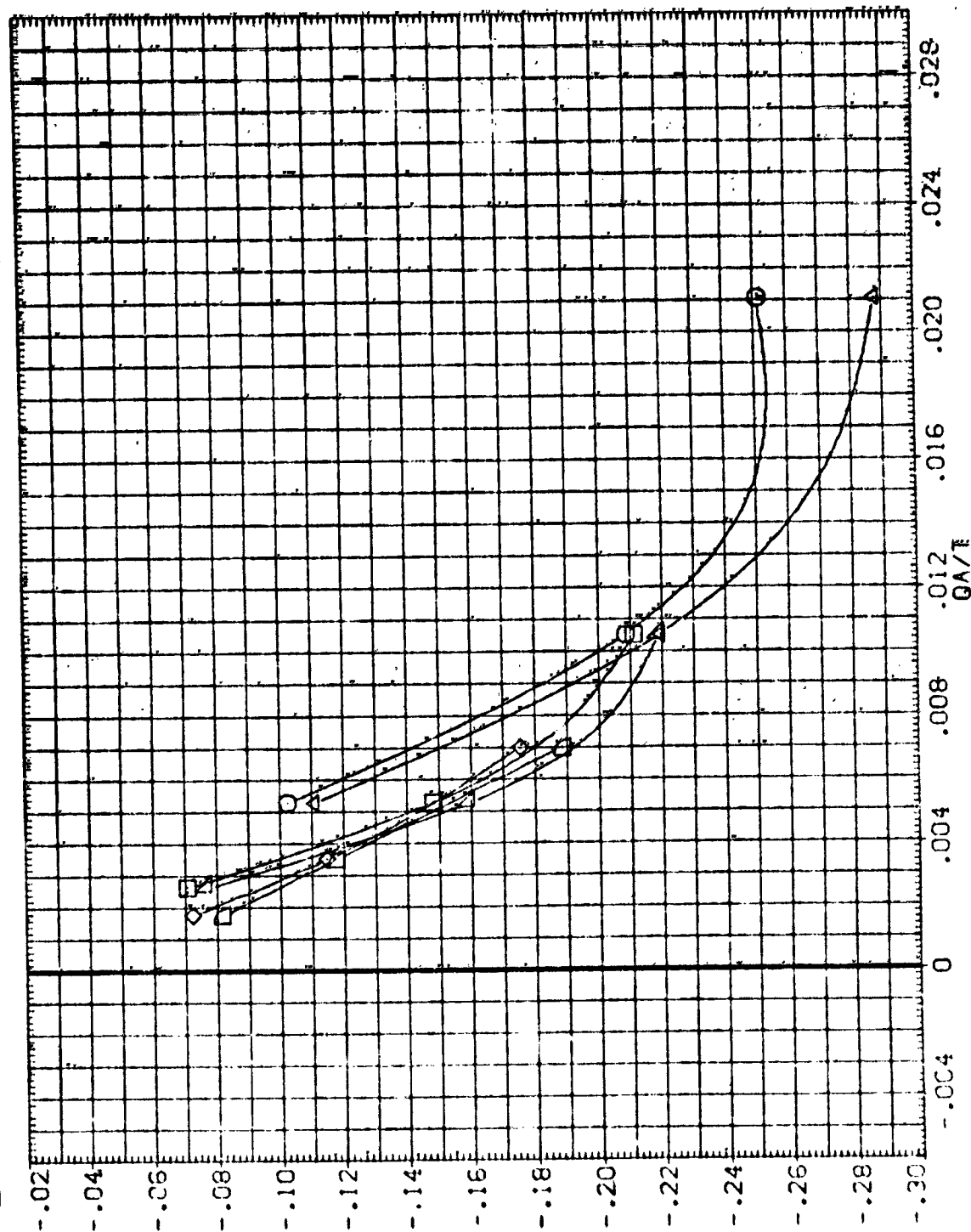


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(α) ALPHA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION	SC. FT.
(SJ012)	GIN79 LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF	2690.0000
(SJ013)	GIN43 LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF	474.8000
(SJ014)	GIN83 LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF	936.6800
(XJ001)	GIN79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	XREF	1076.7800
(XJ002)	GIN43 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	YREF	375.0000
(XJ003)	GIN83 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	ZREF	375.0000
						SCALE	.0100

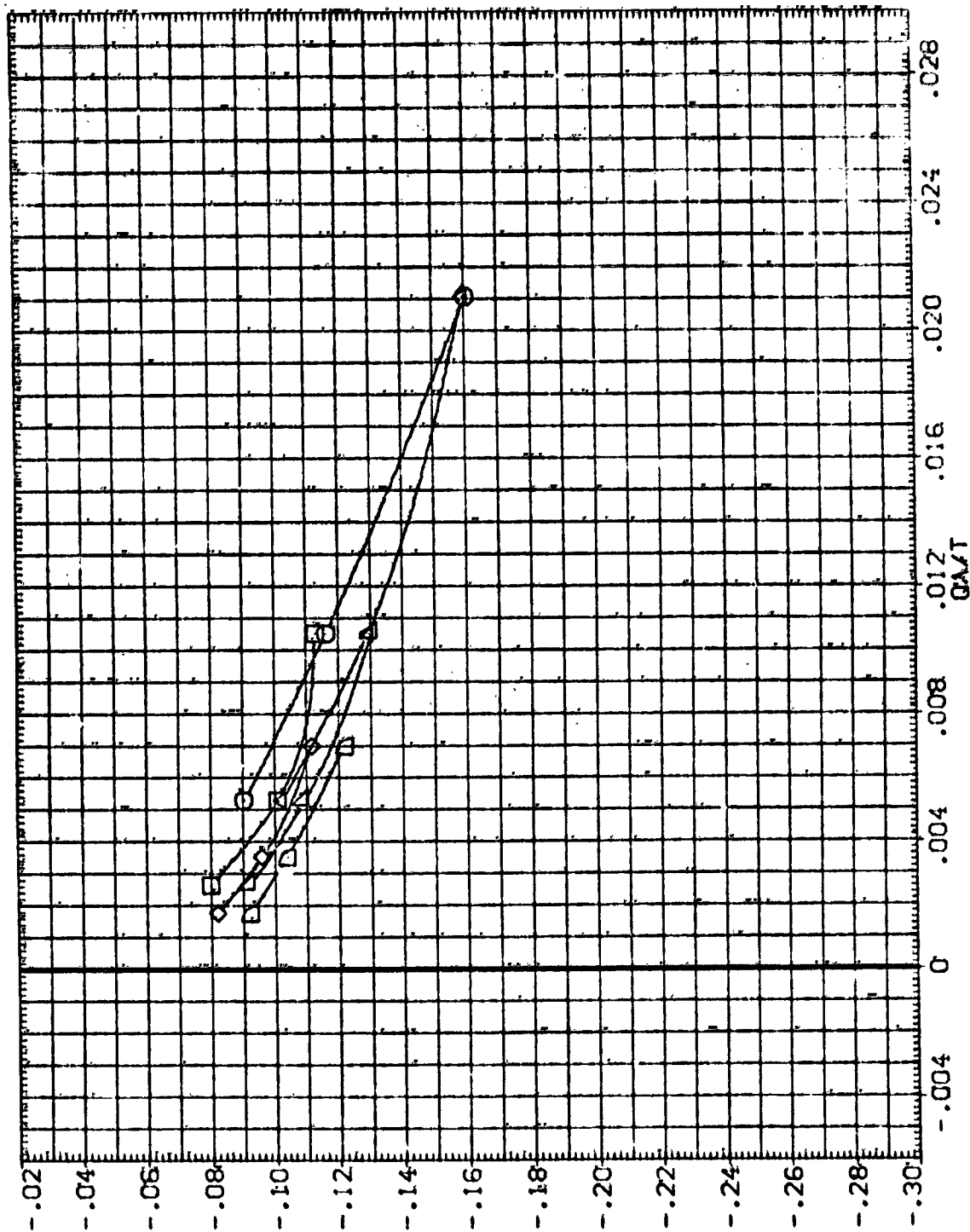


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(B)ALPHA = .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NC-JET	BOLAP	BETA	REFERENCE INFORMATION
(SJA012)	QW79 LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000 SO-FT.
(SJA013)	QW79 LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.6000 INCHES
(SJA014)	QW79 LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	GREF 936.6000 INCHES
(SJA001)	QW79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	XREF 1076.7000 IN. X0
(SJA002)	QW79 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	YREF 375.0000 IN. Y0
(SJA003)	QW79 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	ZREF .0100
						SCALE

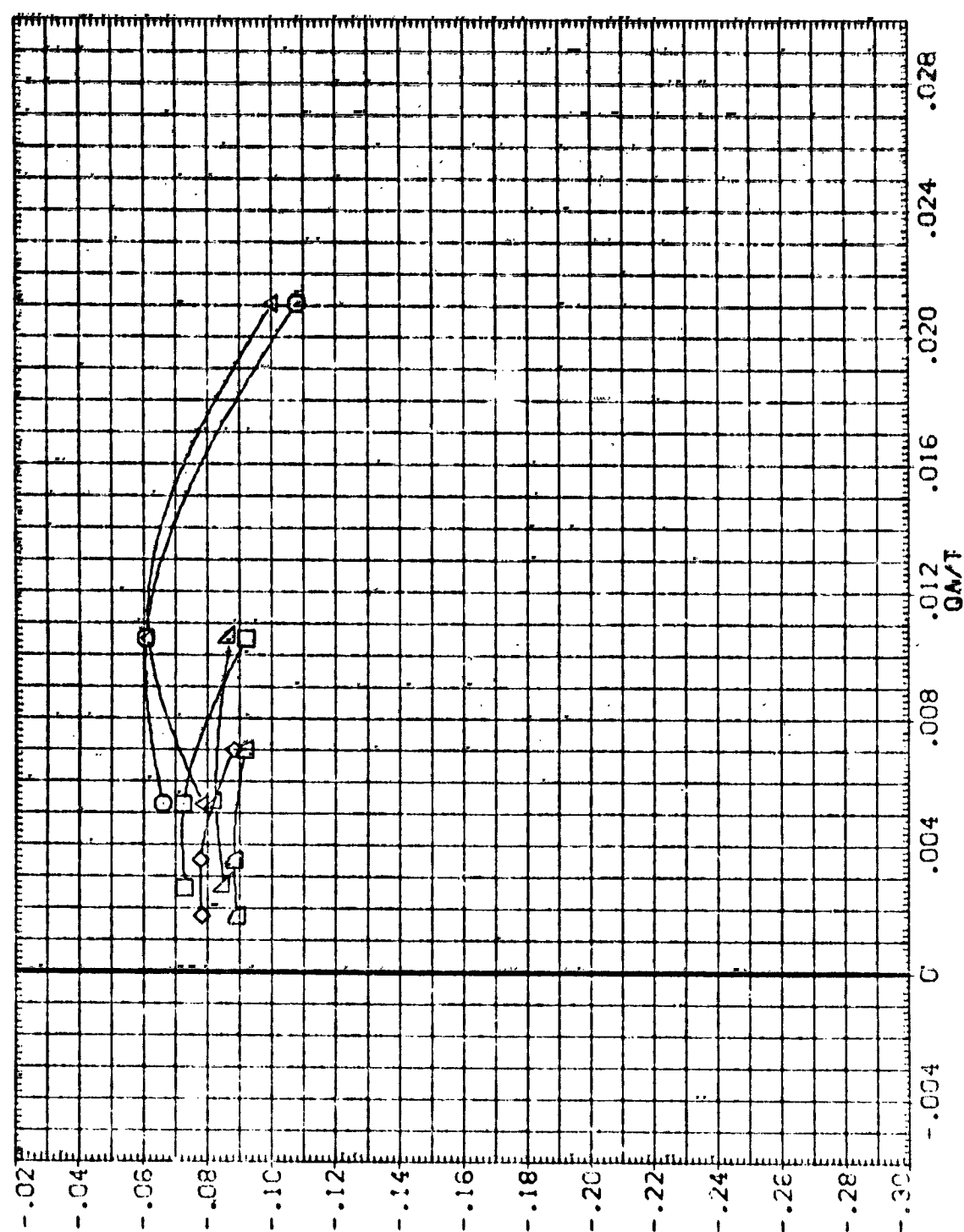


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR. JEIS N79.N49.N83

COALPHA = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION	SO. FT.
(SJA002)	LARC CFHT 118 (NA-22)	.000	1.000	13.750	.000	SREF	2890.0000
(SJA003)	LARC CFHT 118 (NA-22)	.000	2.000	13.750	.000	LREF	474.2000
(SJA004)	LARC CFHT 118 (NA-22)	.000	3.000	13.750	.000	BREF	956.6000
(XJA001)	LARC CFHT 118 (NA-22)	.000	1.000	.000	.000	XREF	1076.7000
(XJA002)	LARC CFHT 118 (NA-22)	.000	2.000	.000	.000	YREF	.0000
(XJA003)	LARC CFHT 118 (NA-22)	.000	3.000	.000	.000	ZREF	375.0000
						SCALE	.0100

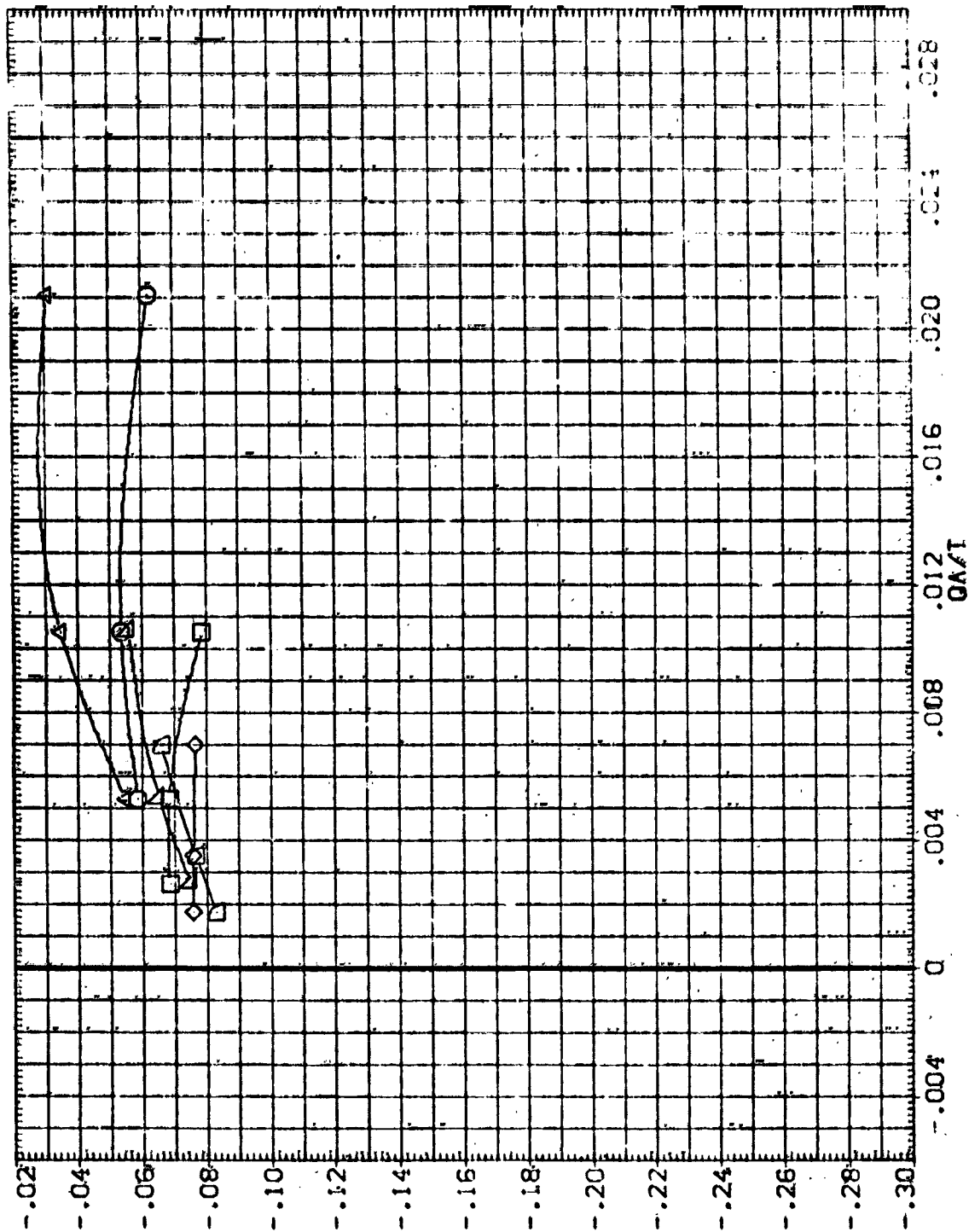


FIGURE 1. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N42, N83

(O) ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJAQ12)	LARC CFHT 118 (NA-22)	.000	1.000	13.750	.000	SREF 2690.0000 SO.FT.
(SJAQ13)	LARC CFHT 118 (NA-22)	.000	2.000	13.750	.000	LREF 424.8000 INCHES
(SJAQ14)	LARC CFHT 118 (NA-22)	.000	3.000	13.750	.000	BREF 836.6800 INCHES
(XJAQ01)	LARC CFHT 118 (NA-22)	.000	1.000	.000	.000	XMRP 1076.7008 IN. YD
(XJAQ02)	LARC CFHT 118 (NA-22)	.000	2.000	.000	.000	YMRP .0000 IN. YD
(XJAQ03)	LARC CFHT 118 (NA-22)	.000	3.000	.000	.000	ZMRP 375.0000 IN. ZD
						SCALE .0100

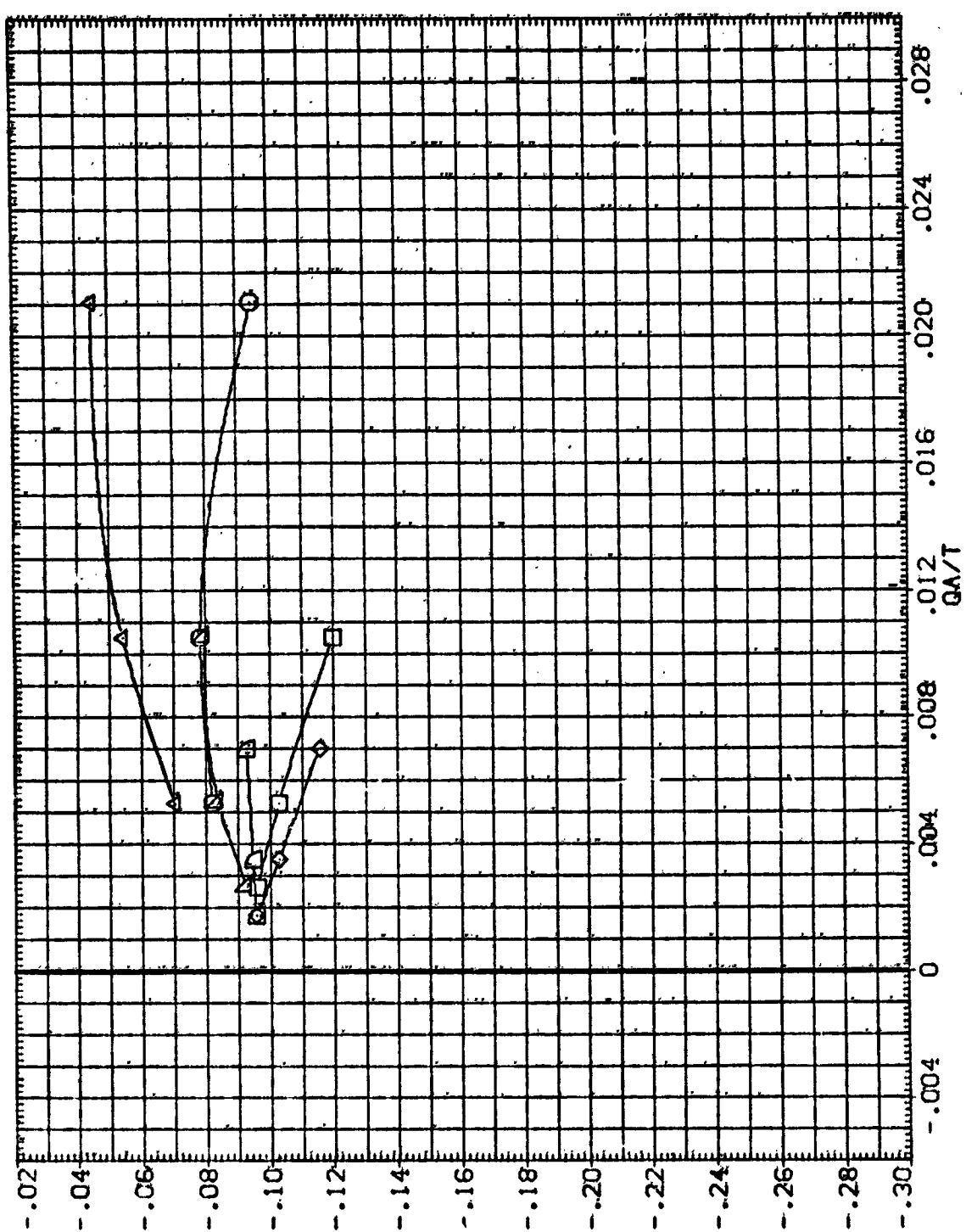


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79,N49,N83
(E)ALPHA = 35.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	NO. JET	BODY FLAP	BETA	REFERENCE INFORMATION
(SJA012)	GIN79 LARC CEHT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000
(SJA013)	GIN48 LARC CEHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000
(SJA014)	GIN83 LARC CEHT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6800
(XJAG01)	GIN79 LARC CEHT 118 (MA-22)	.000	1.000	.000	.000	1076.7000
(XJAG02)	GIN48 LARC CEHT 118 (MA-22)	.000	2.000	.000	.000	YMRP .0000
(XJAG03)	GIN83 LARC CEHT 118 (MA-22)	.000	3.000	.000	.000	ZMRP 375.0000
						SCALE .0100

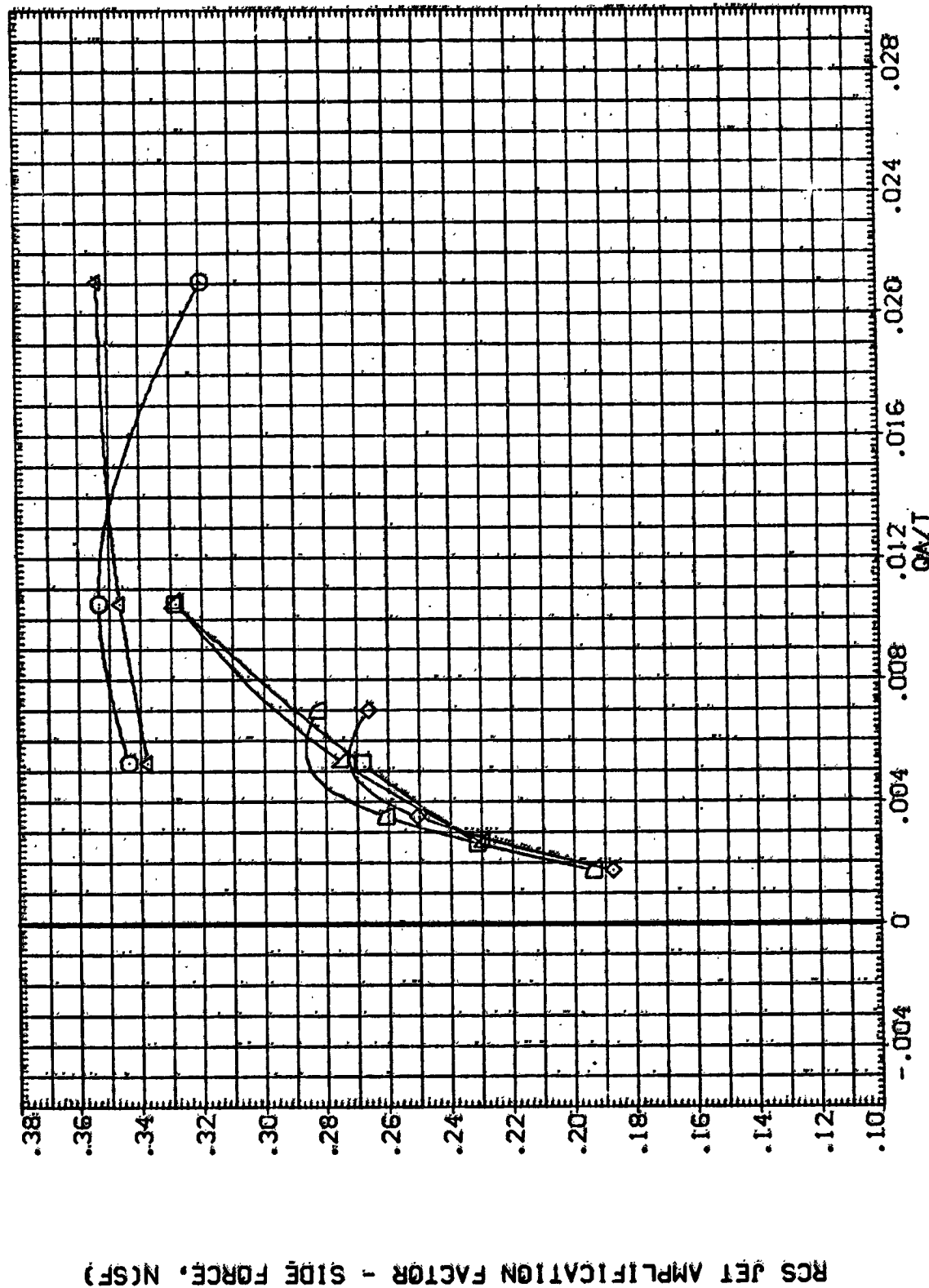


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

CALPWA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA012)	LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000
(SJA013)	LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000
(SJA014)	LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6800
(XJA001)	LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	YMRP 1076.7000
(XJA002)	LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	ZMRP 375.0000
(XJA003)	LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	SCALE .0100

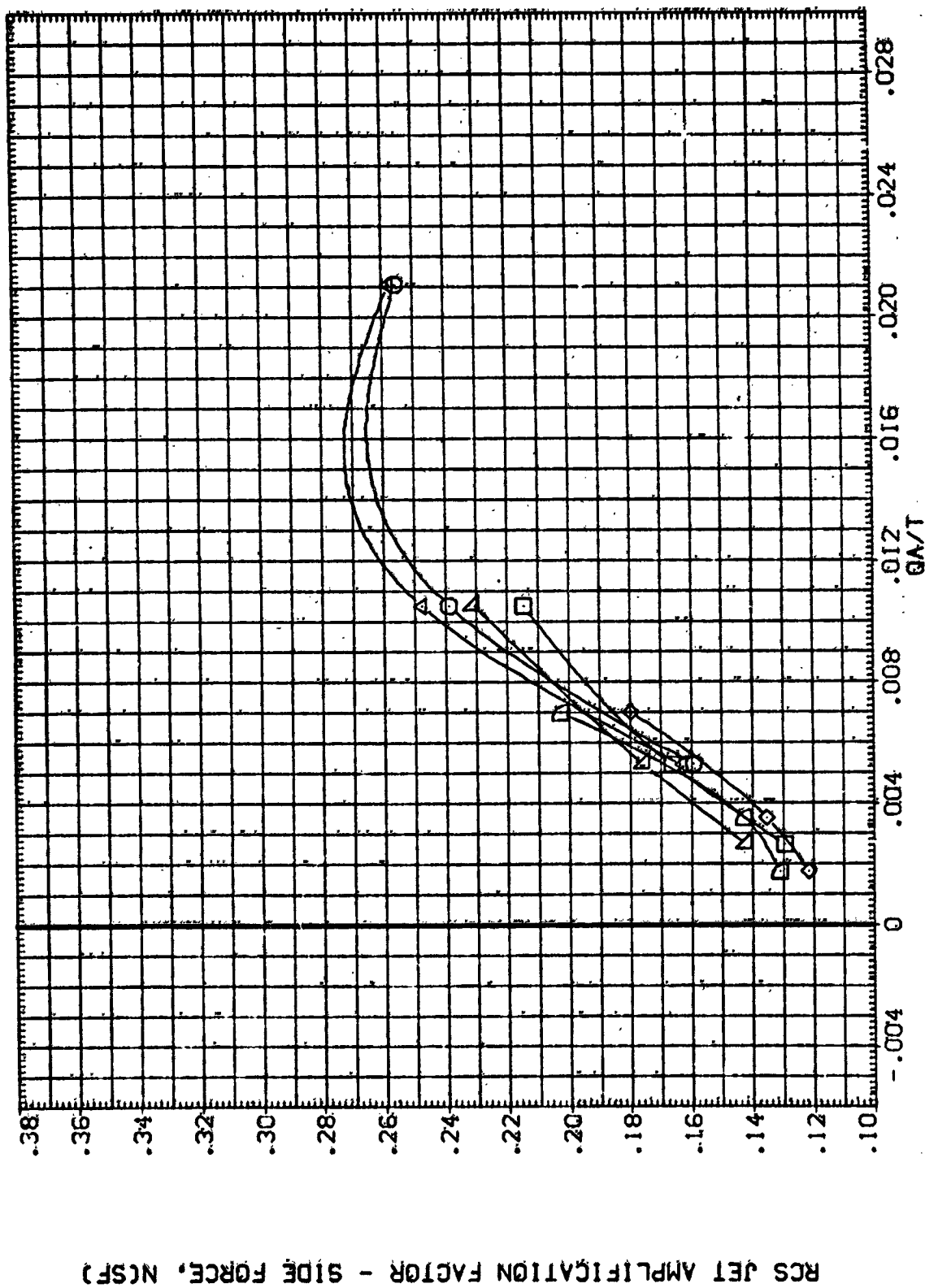


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JEIS N79,N49,N83

(B) ALPHA = .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA012)	LARC CENT 118 (NA-22)	.000	1.000	13.750	.000	SREF 2690.0000 SQ. FT.
(SJA013)	LARC CENT 118 (NA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJA014)	LARC CENT 118 (NA-22)	.000	3.000	13.750	.000	BREF 536.6800 IN. XD
(XJA001)	LARC CENT 118 (NA-22)	.000	1.000	.000	.000	XHREF 1076.7000 IN. YD
(XJA002)	LARC CENT 118 (NA-22)	.000	2.000	.000	.000	YHREF .6800 IN. YD
(XJA003)	LARC CENT 118 (NA-22)	.000	3.000	.000	.000	ZHREF 375.0000 IN. ZD
						SCALE .0100

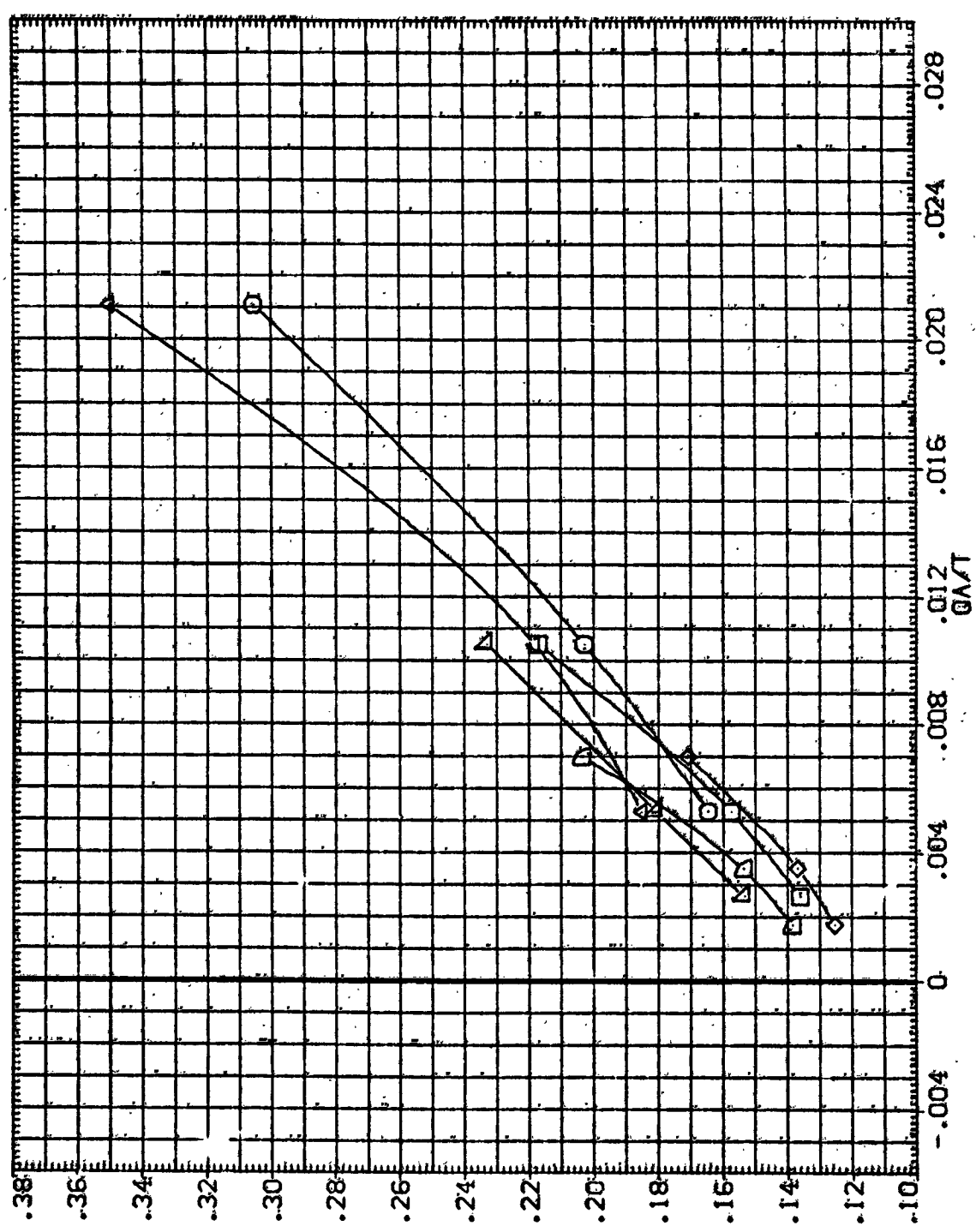


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FAC. OR. JETS N79, N49, N83

(C)ALPHA = 10.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA012)	CIN79 LARC CFHT 118 (MA-22)	.000	1.000	13.750	.000	SREF 2690.0000 SQ. FT.
(SJA013)	CIN49 LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJA014)	CIN83 LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6800 INCHES
(XJA001)	CIN79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	XMRP 1076.7000 IN. X0
(XJA002)	CIN49 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	YMRP .0000 IN. Y0
(XJA003)	CIN83 LARC CFHT 118 (MA-22)	.000	3.000	.000	.000	ZMRP 375.0000 IN. Z0
						SCALE .0100

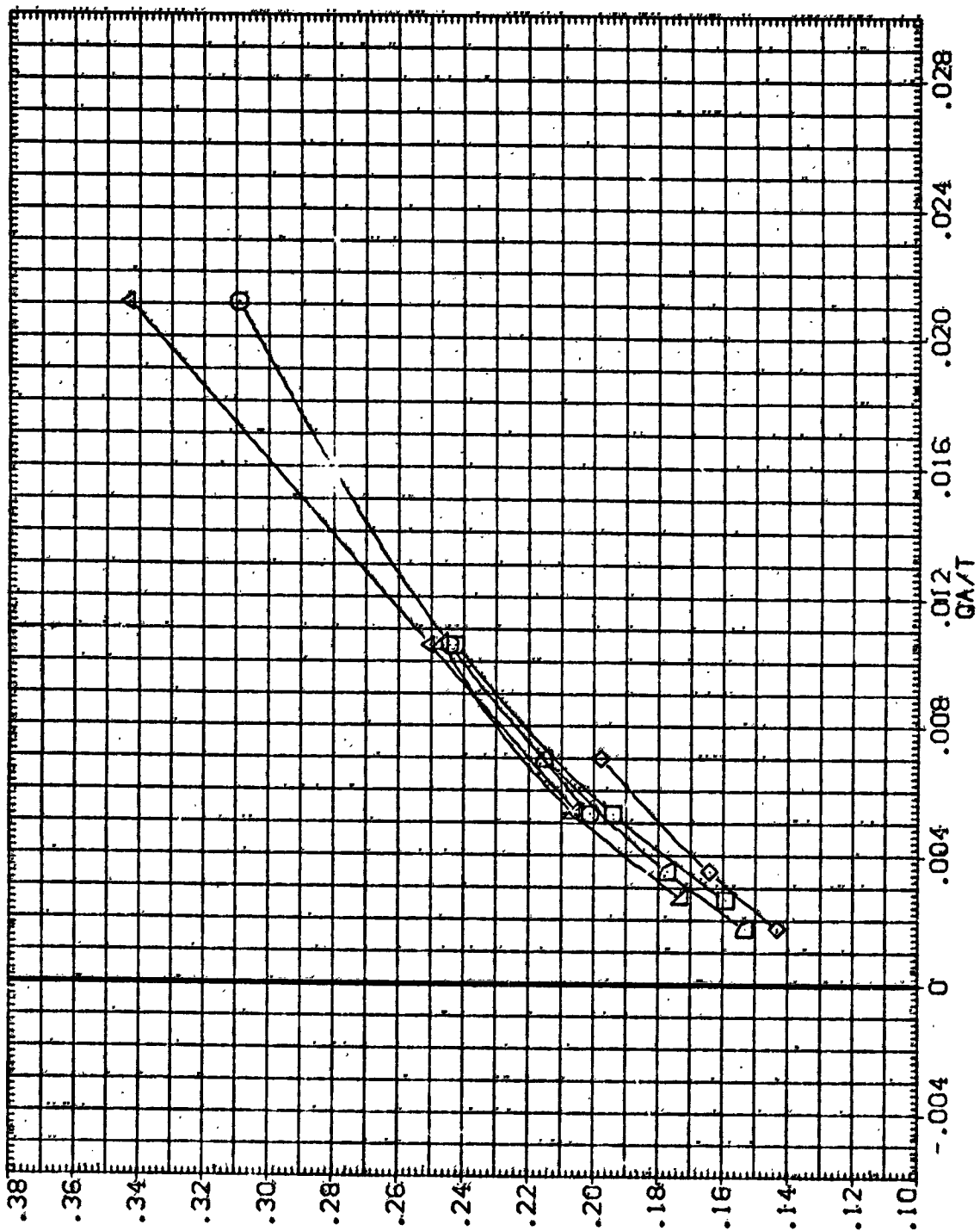


FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79, N49, N83

(α)ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJA012)	GIN79 LARC CFHT 118 (MA-22)	.080	1.000	13.750	.000	SREF 2690.0000 SQ. FT.
(SJA013)	GIN83 LARC CFHT 118 (MA-22)	.000	2.000	13.750	.000	LREF 474.8000 INCHES
(SJA014)	GIN83 LARC CFHT 118 (MA-22)	.000	3.000	13.750	.000	BREF 936.6800 IN. X0
(XJA001)	GIN79 LARC CFHT 118 (MA-22)	.000	1.000	.000	.000	XREF 1076.7000 IN. X0
(XJA002)	GIN83 LARC CFHT 118 (MA-22)	.000	2.000	.000	.000	YREF 375.0000 IN. Y0
(XJA003)	GIN83 LARC CFHT 118 (MA-22)	.080	3.000	.000	.000	ZREF .0100

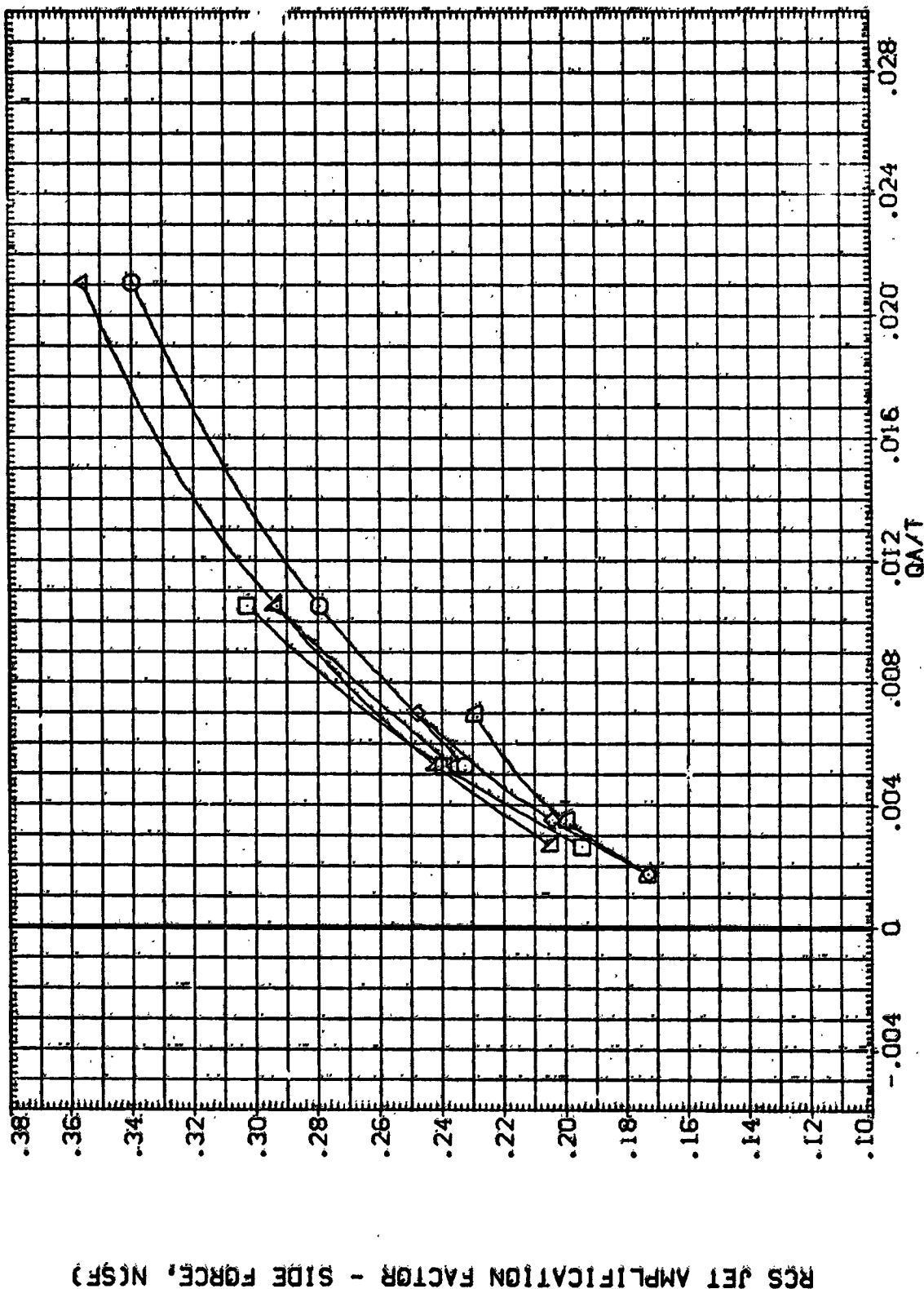



FIGURE 42. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79,N49,N83

(E)ALPHA = 35.00

DATA SET SYMBOL: (SMA015) (XMA003)  CONFIGURATION DESCRIPTION: Q1179N78 LARC CFHT 118 (MA-221) Q1179N78 LARC CFHT 118 (MA-222)

ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
.000	2.000	13.750	.000	SREF 2690.0000 SO.FT.
.000	2.000	.000	.000	LREF 474.8000 INCHES
				BREF 938.6800 INCHES
				XMRP 1076.7000 IN. X0
				YMRP .0860 IN. Y0
				ZMRP 375.0000 IN. Z0
				SCALE .0100

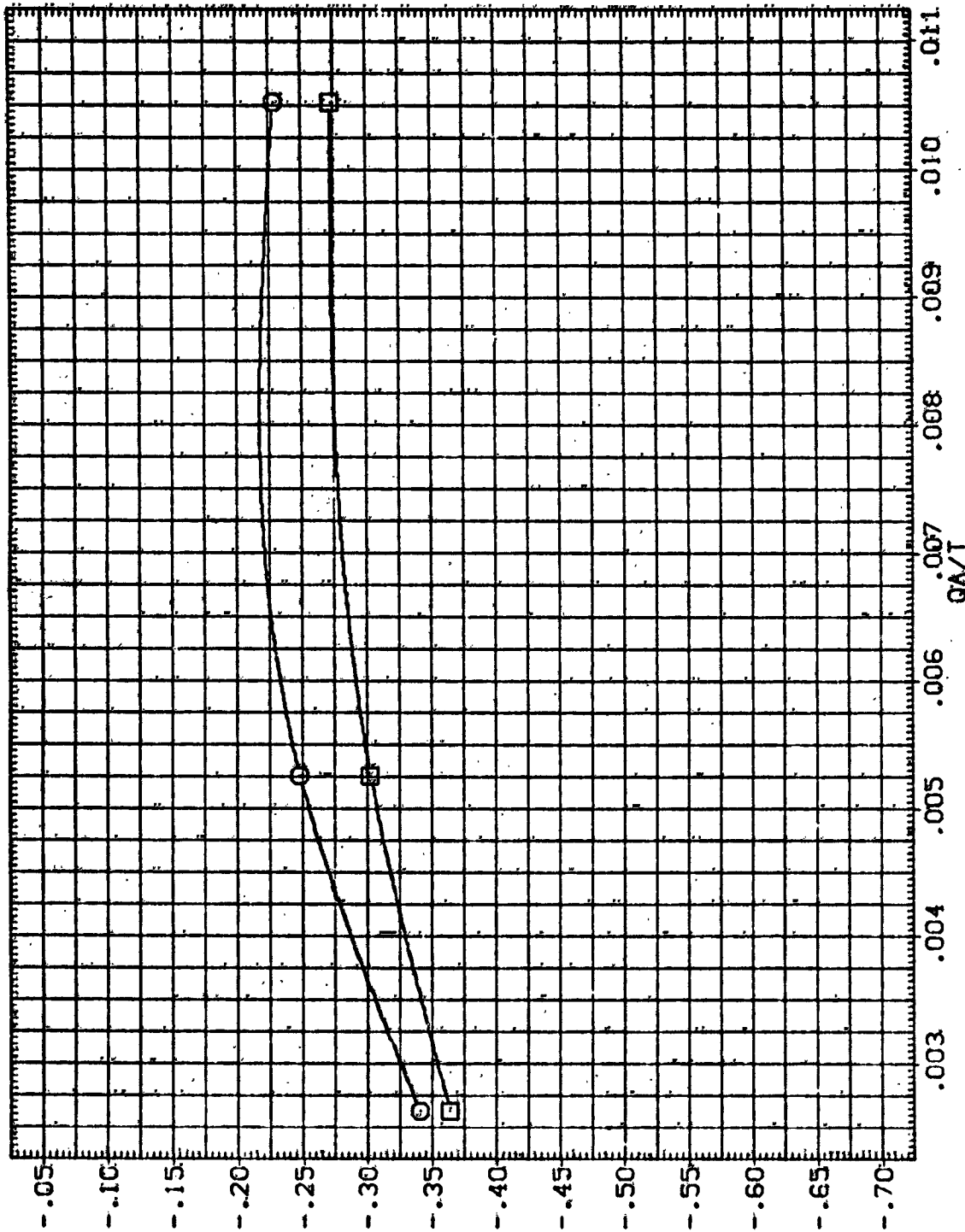


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(A) ALPHA = -8.00

DATA SET SYMBOL: ☐ (SAC12)
 CONFIGURATION DESCRIPTION: GUN79N78 LARC CFMT 118 (HA-22)
 GUN79N78 LARC CFMT 118 (HA-22)

ELEVON: .000
 NO. JET: 2.000
 BDF LAP: 13.750
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 SO. FT.
 LREF: 474.8000 INCHES
 BREF: 336.8800 INCHES
 XMRP: 1076.7000 IN. X0
 YMRP: .0000 IN. Y0
 ZMRP: 375.0000 IN. Z0
 SCALE: .0100

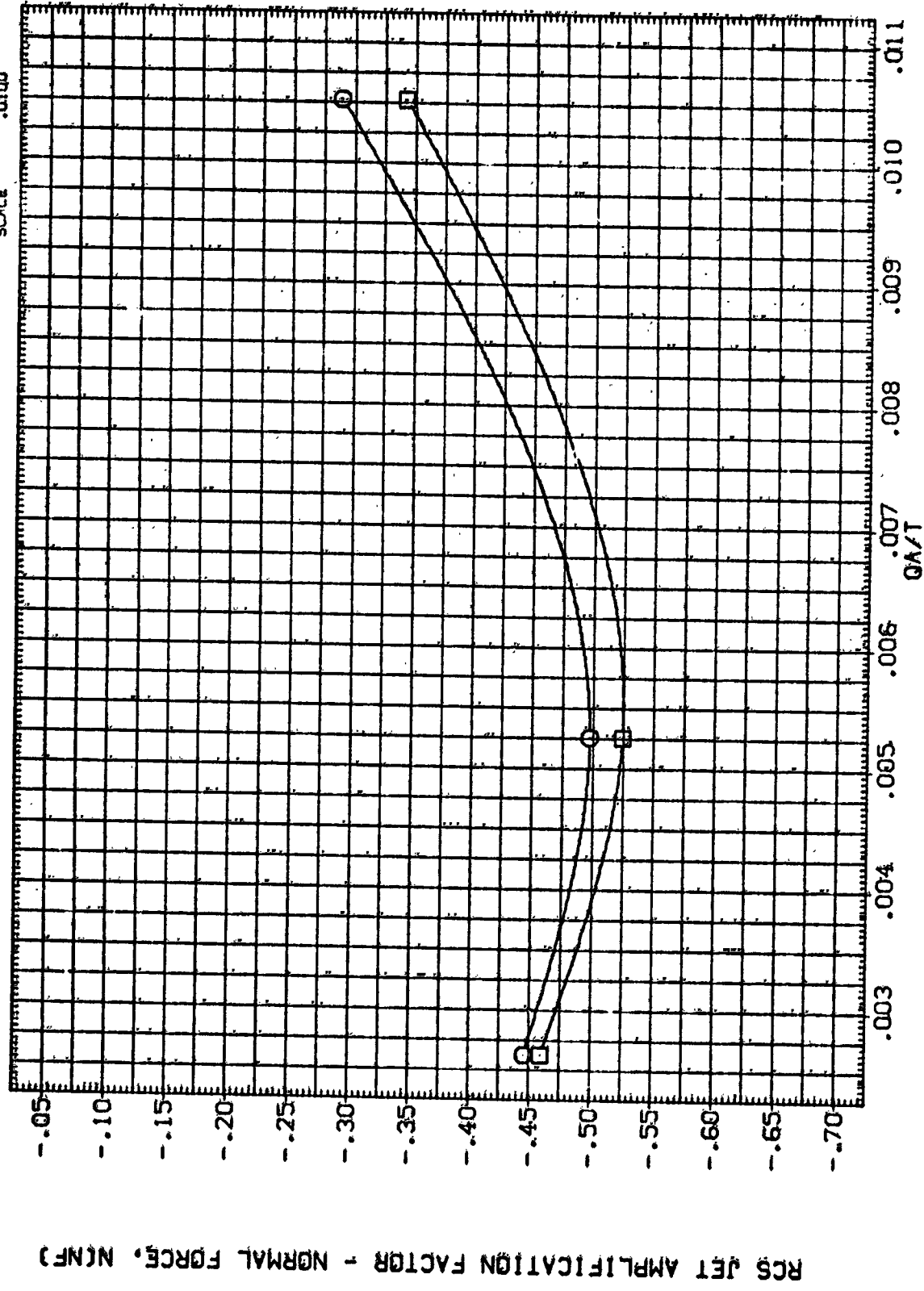


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78
 (B) ALPHA = .00

DATA SET SYMBOL: **Q** CONFIGURATION DESCRIPTION: Q1N79N78 LARC CFHT 118 (MA-22) Q1N79N78 LARC CFHT 118 (MA-22)

ELEVON: .000 NO. JET: 2.000 BOFLAP: 13.750 BETA: .000

REFERENCE INFORMATION: SQ.FT.: 2690.0000 SREF: 474.8080 LREF: 536.6800 BRREF: 1076.7000 IN. X0: 375.0000 YMRP: .0800 IN. Y0: 375.0000 ZMRP: .0700 SCALE: .0700

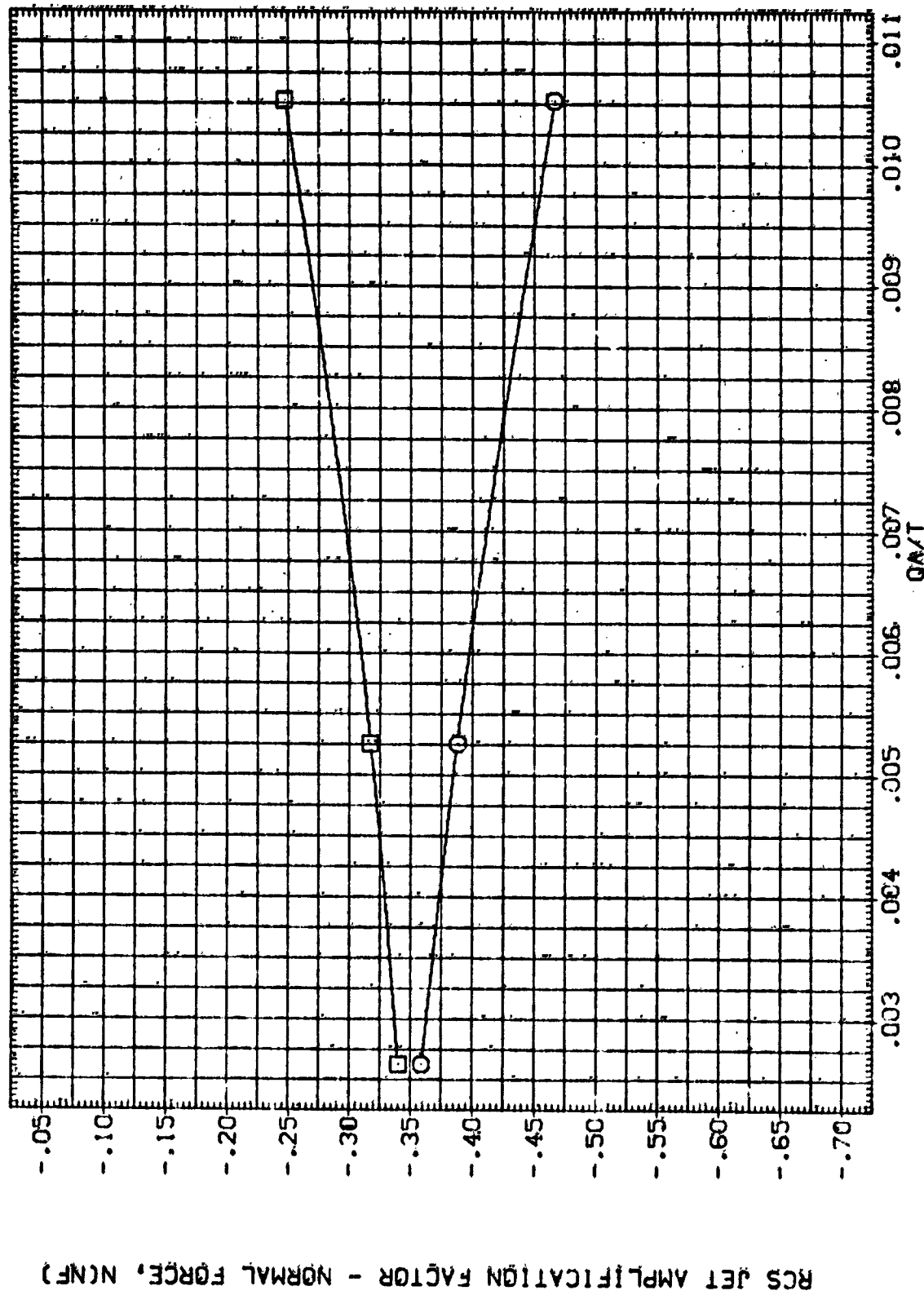


FIGURE 43. EFFECT OF BODY FEAP ON AMPLIFICATION FACTOR, JETS N79N78

(CJALPHA = 10.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA013) □ QN79N78 LARC CFMT 118 (MA-221)
 (XJA008) □ QN79N78 LARC CFMT 118 (MA-221)

ELEVON NO. JET BOFLAP BETA
 .000 2.000 13.750 .000
 .000 2.000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8800 INCHES
 BRFP 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

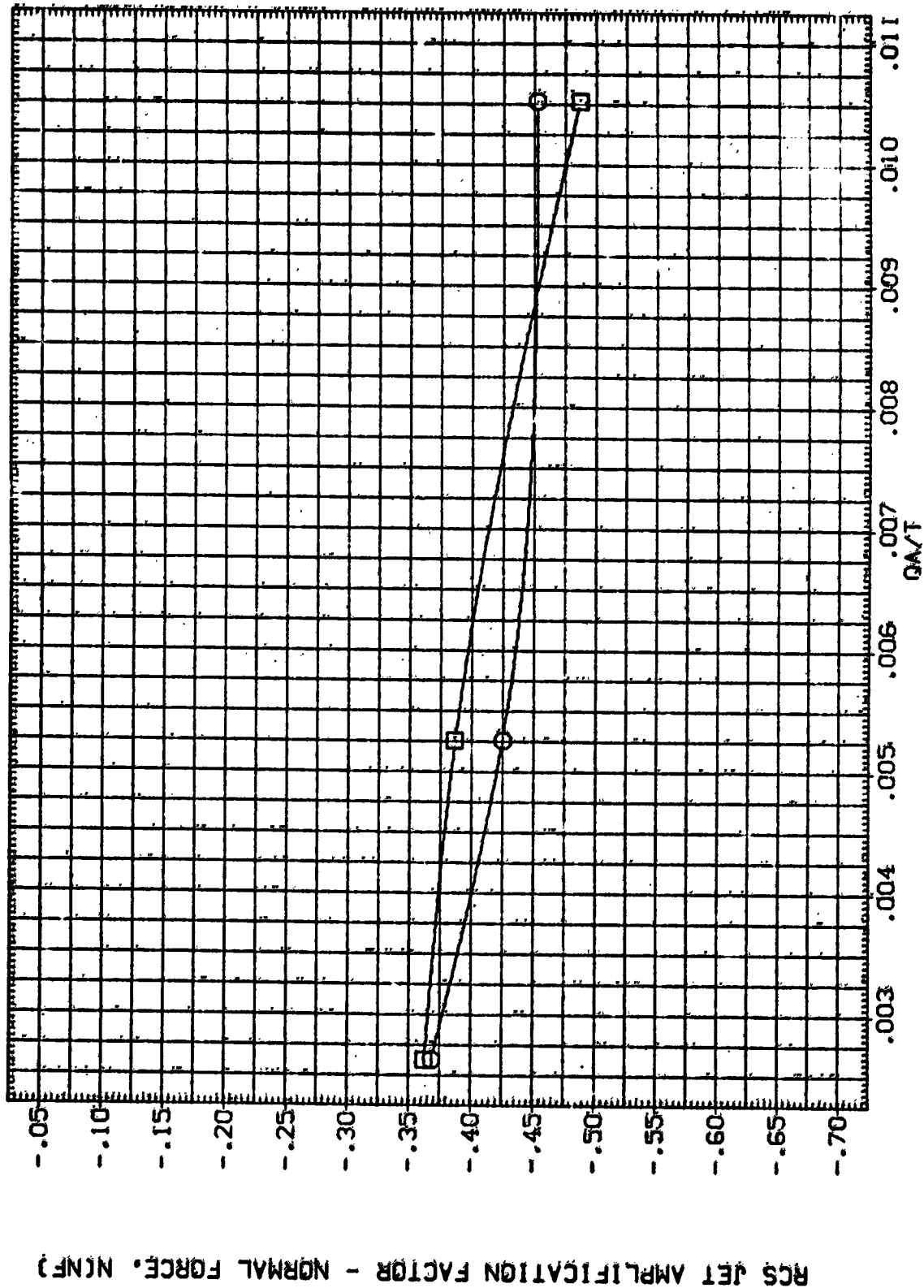


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(CD)ALPHA = 20.00

DATA SET SYMBOL: 8
 (SJA819)
 (XJ4009.1)

CONFIGURATION DESCRIPTION
 01N79N78 LARC CFMT 18 (PA-22)
 01N79N78 LARC CFMT 118 (PA-22)

ELEVON NO. JET 80SLAP BETA
 .000 2.000 .000
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 938.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

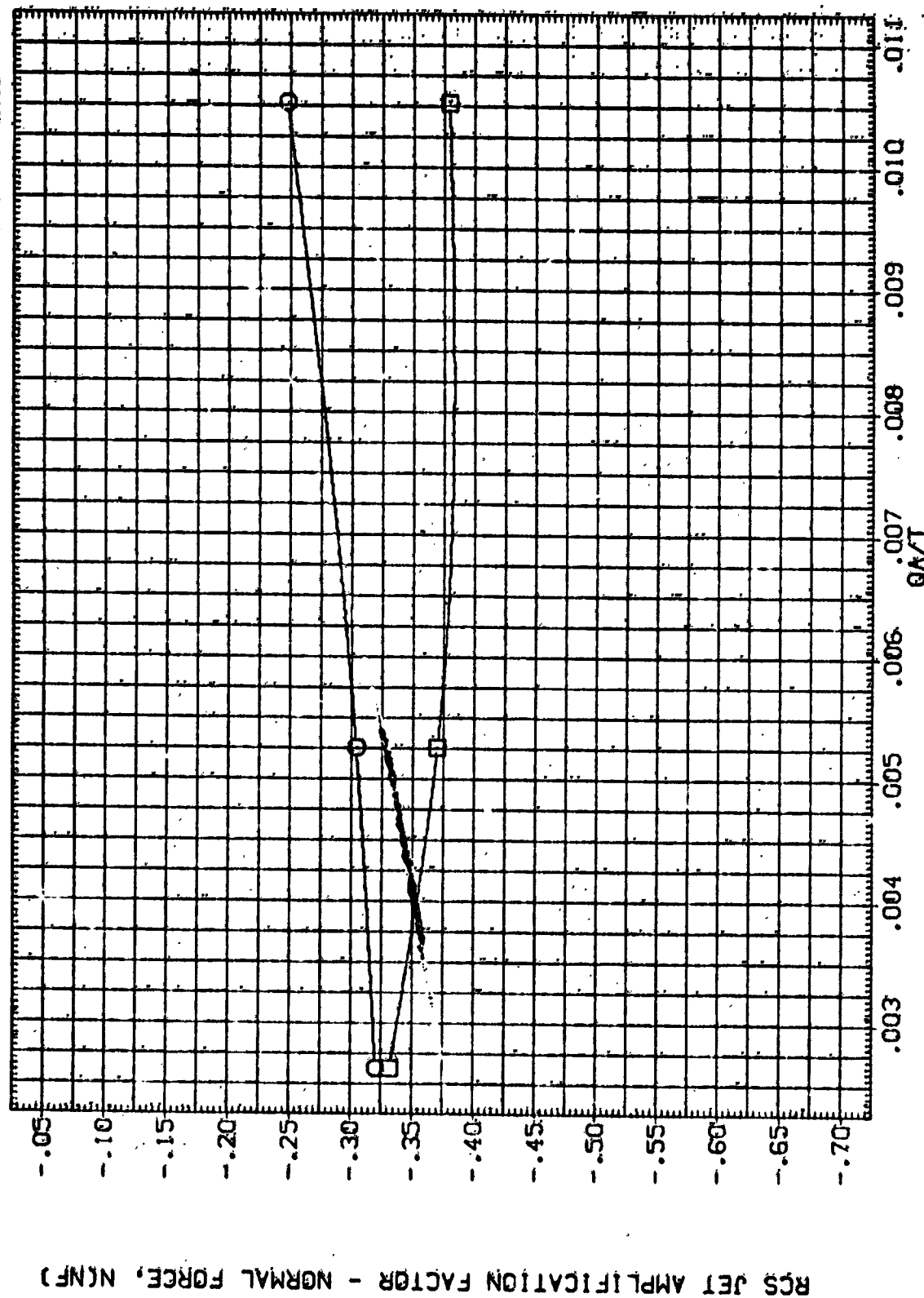


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(C) ALPHA = 35.0

DATA SET SYMBOL: \square (SJA015)
 (XJAO05)
 CONFIGURATION DESCRIPTION:
 QIN79N78 LAPS CFHT 118 (MA-22)
 QIN79N78 LARS CFHT 118 (MA-22)

ELEVATION: .000
 NO. JET: 2.000
 BOFLAP: 13.750
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2650.0000 SQ. FT.
 LREF: 474.8000 INCHES
 EREF: 936.6800 INCHES
 XPRP: 1076.7000 IN. X0
 YPRP: .0000 IN. Y0
 ZPRP: 375.0000 IN. Z0
 SCALE: .0100

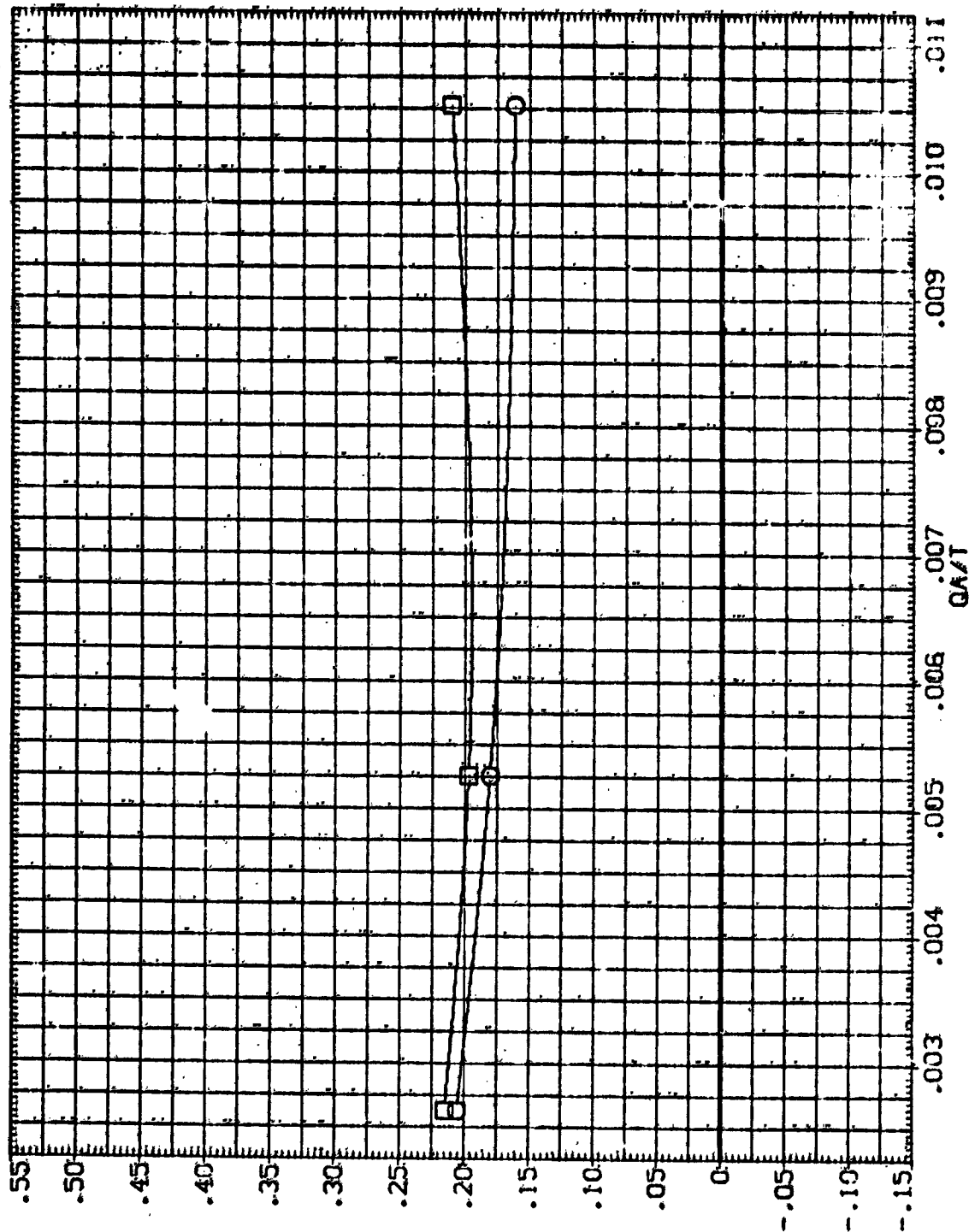


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(A) ALPHA = -8.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BDFLAP		BETA		REFERENCE INFORMATION	
(SLAO15)	Q	Q1N79N78	LARC CFMT 118 (MA-23)	.000	.000	2.000	13.750	.000	SREF	2630.0000	SO. FT.		
(XJAO09)		Q1N79N78	LARC CFMT 118 (MA-22)	.800	.000	2.000	.000	.000	LREF	474.8000	INCHES		
									BREF	936.6800	INCHES		
									XREF	1076.7000	IN. X0		
									YREF	.0000	IN. Y0		
									ZREF	375.0000	IN. Z0		
									SCALE	.0100			

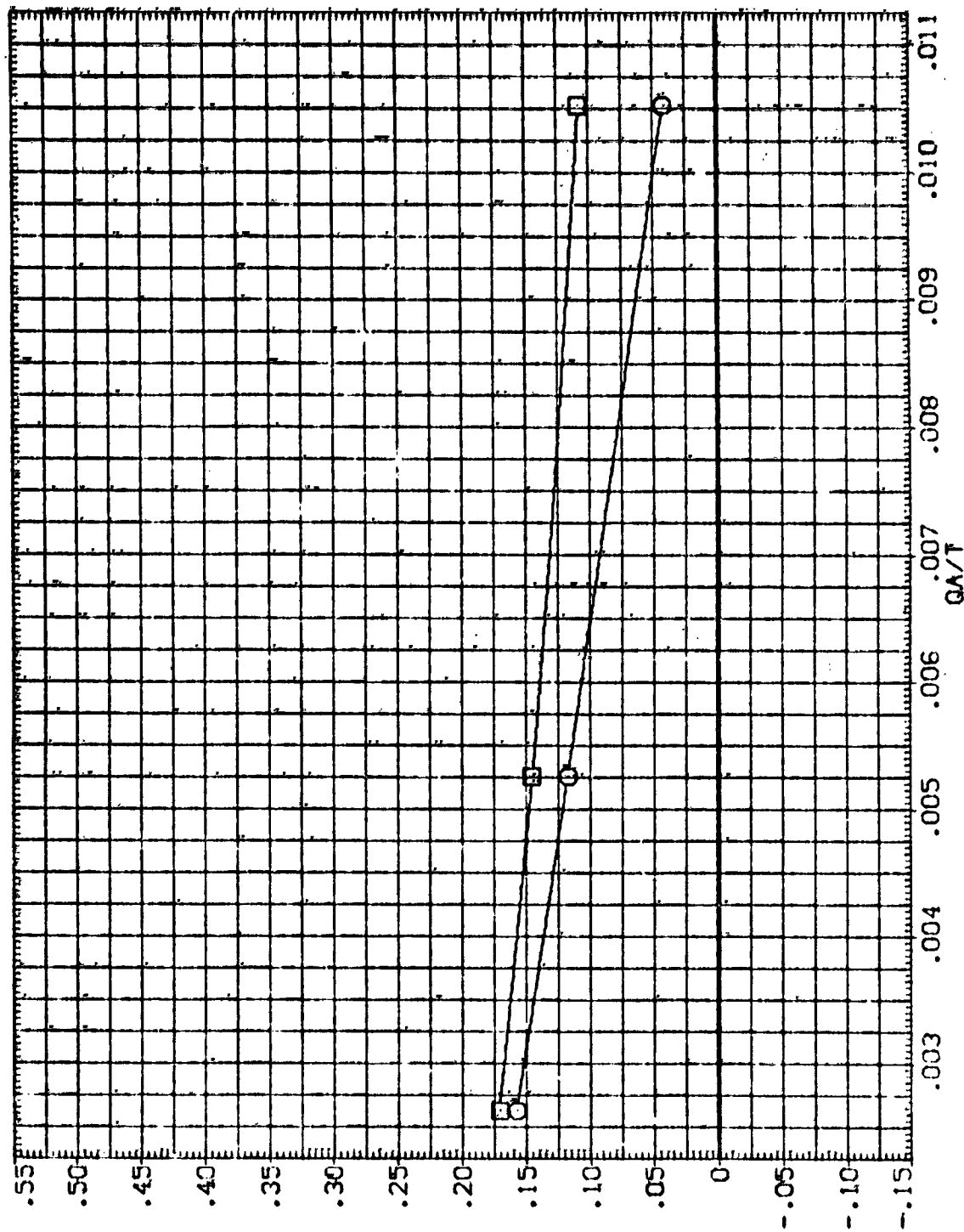


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR. JETS N79N78

(B) ALPHA = .00

DATA SET SYMBOL: 01N79N78 LARC CFHT 118 (MA-22)
 (SJA015) 01N79N78 LARC CFHT 118 (MA-22)
 (XJA005)

ELEVON: .000
 NO. JET: 2.000
 BOFLAP: 13.750
 BETA: .000

REFERENCE INFORMATION
 SREF: 2692.0000 SQ. FT.
 LREF: 474.8000 INCHES
 BREF: 506.6800 INCHES
 XTRP: 1026.7000 IN. XQ
 YTRP: .0000 IN. YQ
 ZTRP: 375.0000 IN. ZQ
 SCALE: .6100

RCS JET AMPLIFICATION FACTOR - PITCH, N(PM)

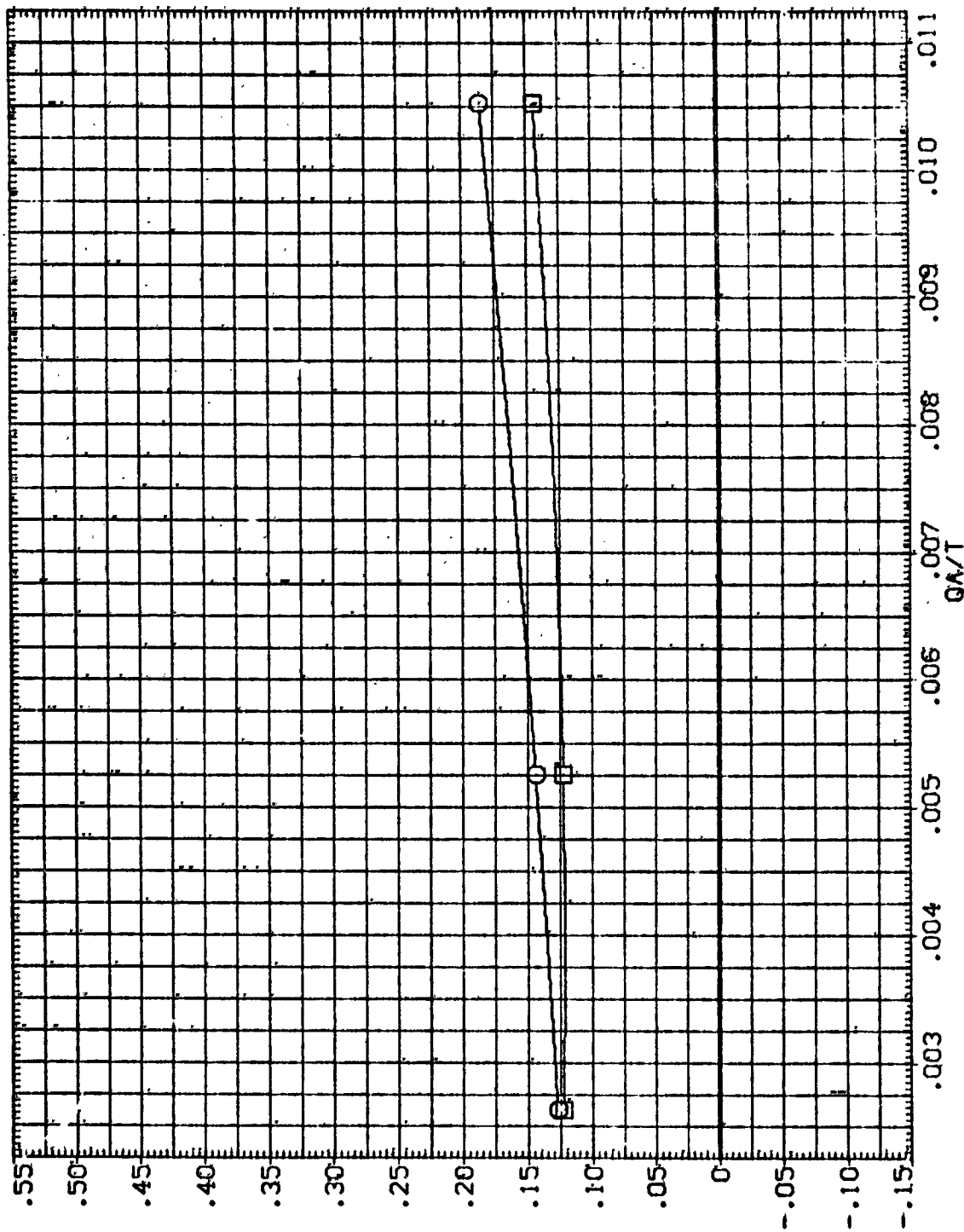


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(C)ALPHA = 10.00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BOFLAP		BETA		REFERENCE INFORMATION	
(SJA015)	Q	Q1N79N78	LARC CFMT 118 (MA-22)	.008	2.000	13.750	.000	SREF	2680.0000	50. FT.			
(XJA009)		Q1N79N78	LARC CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF	474.8000	INCHES			
								BREF	936.6800	INCHES			
								XMRP	1076.7000	IN. X0			
								YMRP	.0000	IN. Y0			
								ZMRP	375.0000	IN. Z0			
								SCALE	.0100				

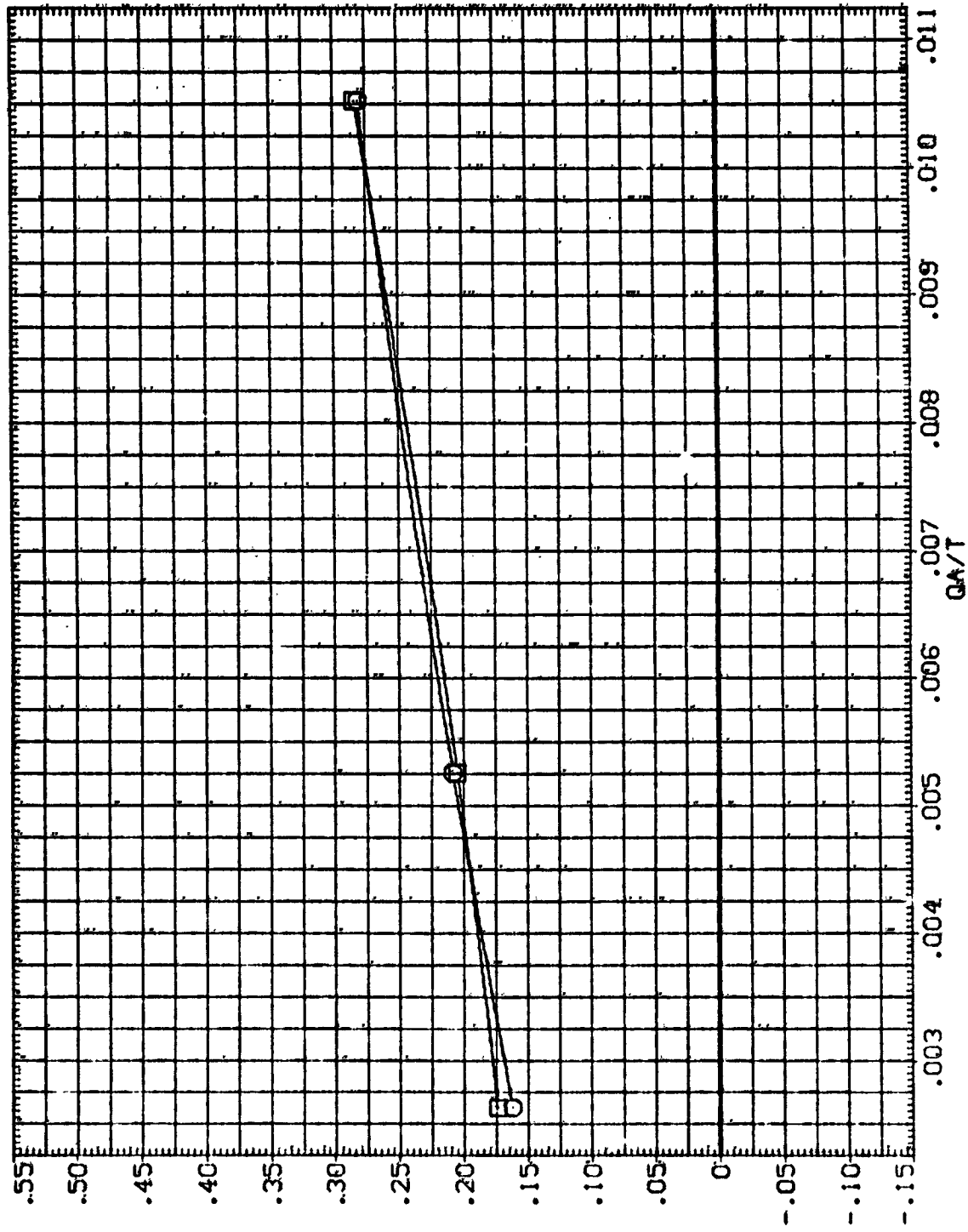


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR. JETS N79N78

(CD)ALPHA = 20.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA015) □ 01N79N28 LARC CFHT 118 (MA-22)
 (XJAG09) □ 01N79N28 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
 .000 2.000 .000
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.8800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

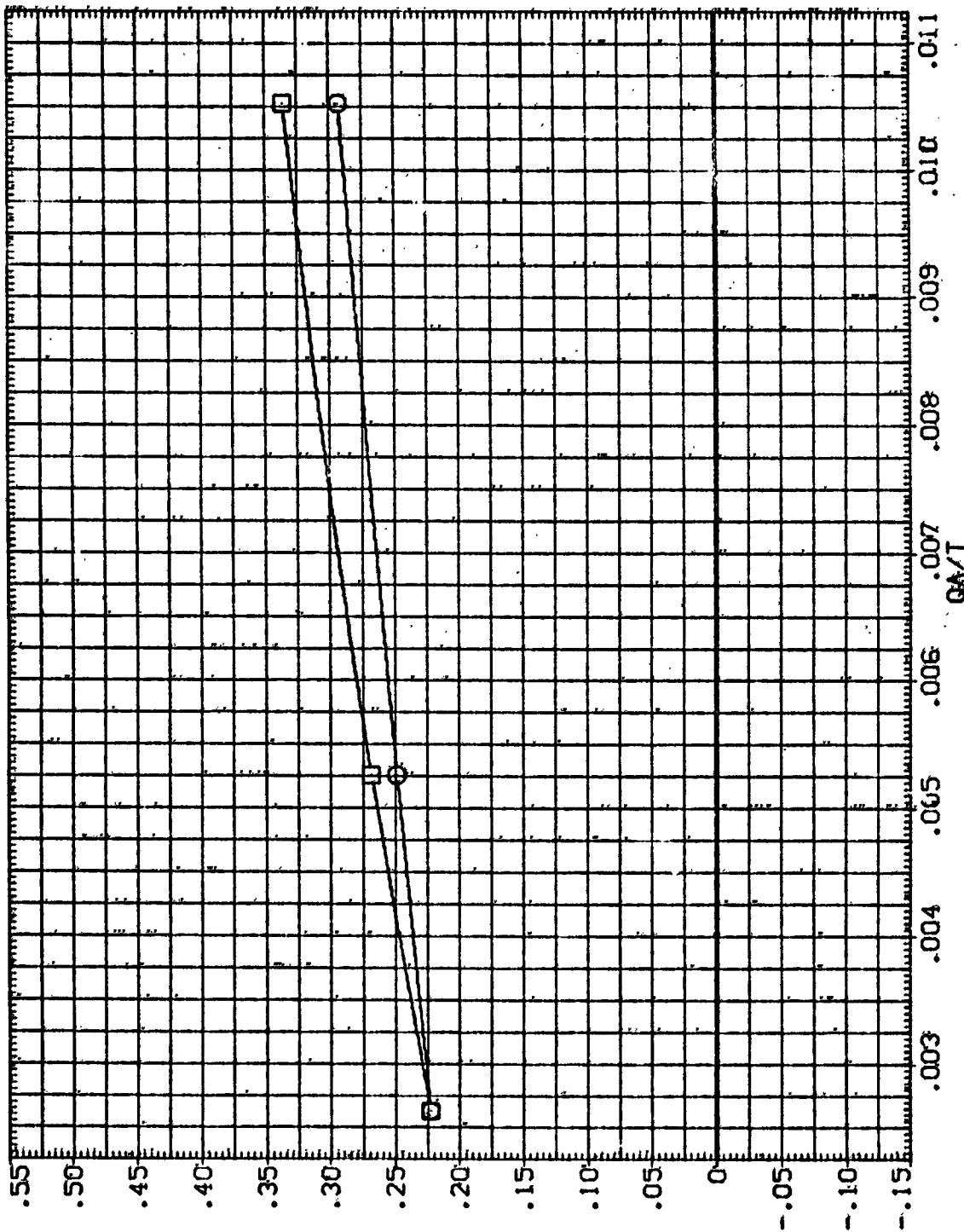


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(E) ALPHA = 35.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA015) 8 01N79N78 LARC CFMT 118 (MA-222)
 (XJA009) 01N79N78 LARC CFMT 118 (MA-222)

ELEVON NO. JET BOFLAP BETA
 .000 2.000 .000
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2690.8000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.5800 INCHES
 XRRP 1076.7000 IN. X0
 YRRP .0800 IN. Y0
 ZRRP 375.0000 IN. Z0
 SCALE .0100

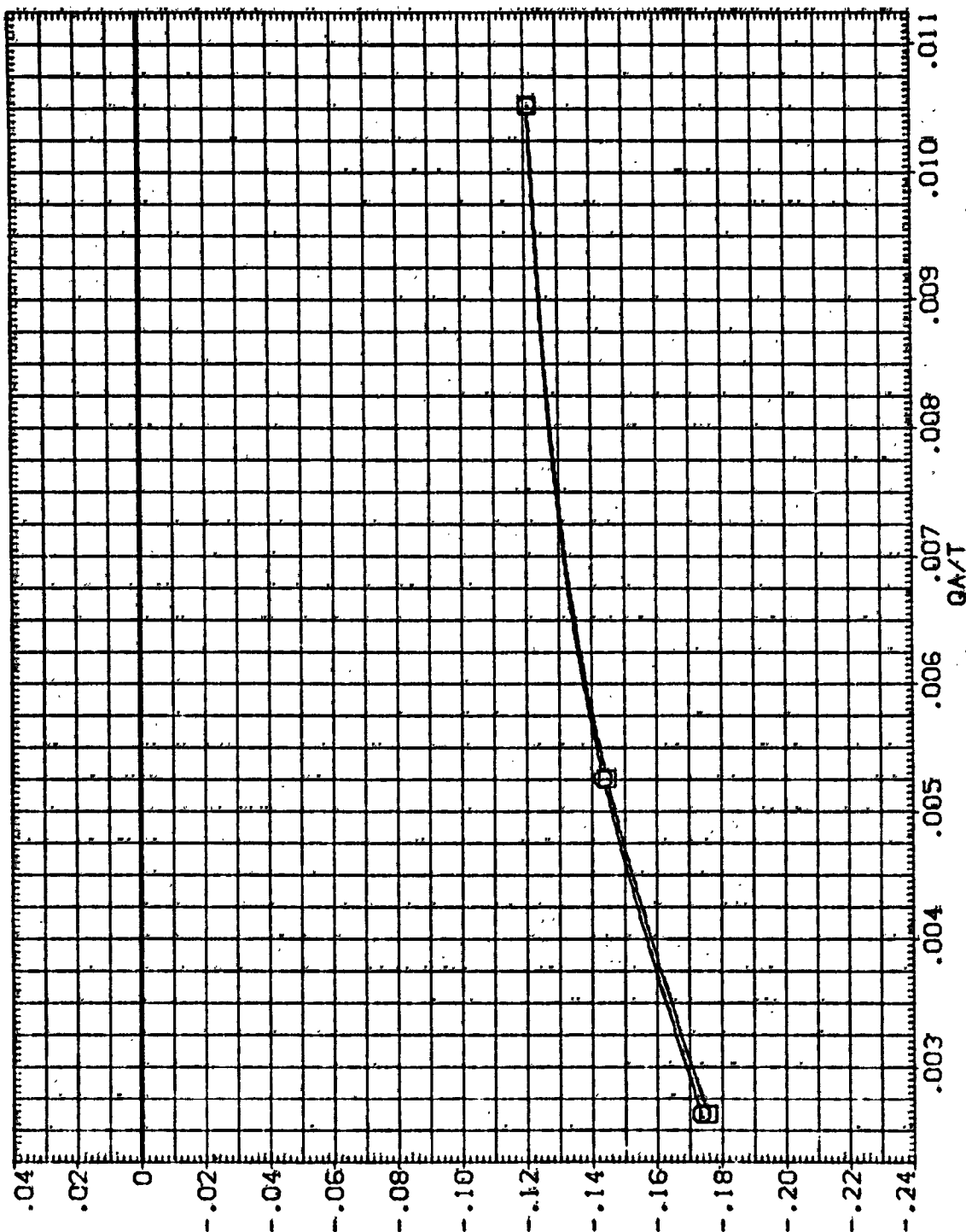


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(A) ALPHA = -8.00

DATA SET SYMBOL: ☐ (SJA015)
 CONFIGURATION DESCRIPTION: GUN79N78 LARC CFMT 118 (MA-221)
 GUN79N78 LARC CFMT 118 (MA-221)

ELEVON: .000
 NO. JET: 2.000
 BDFEAP: 13.750
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2699.0000
 LREF: 474.8000
 BREF: 936.6800
 XMRP: 1076.7000
 YMRP: .0000
 ZMRP: 375.0000
 SCALE: .0100

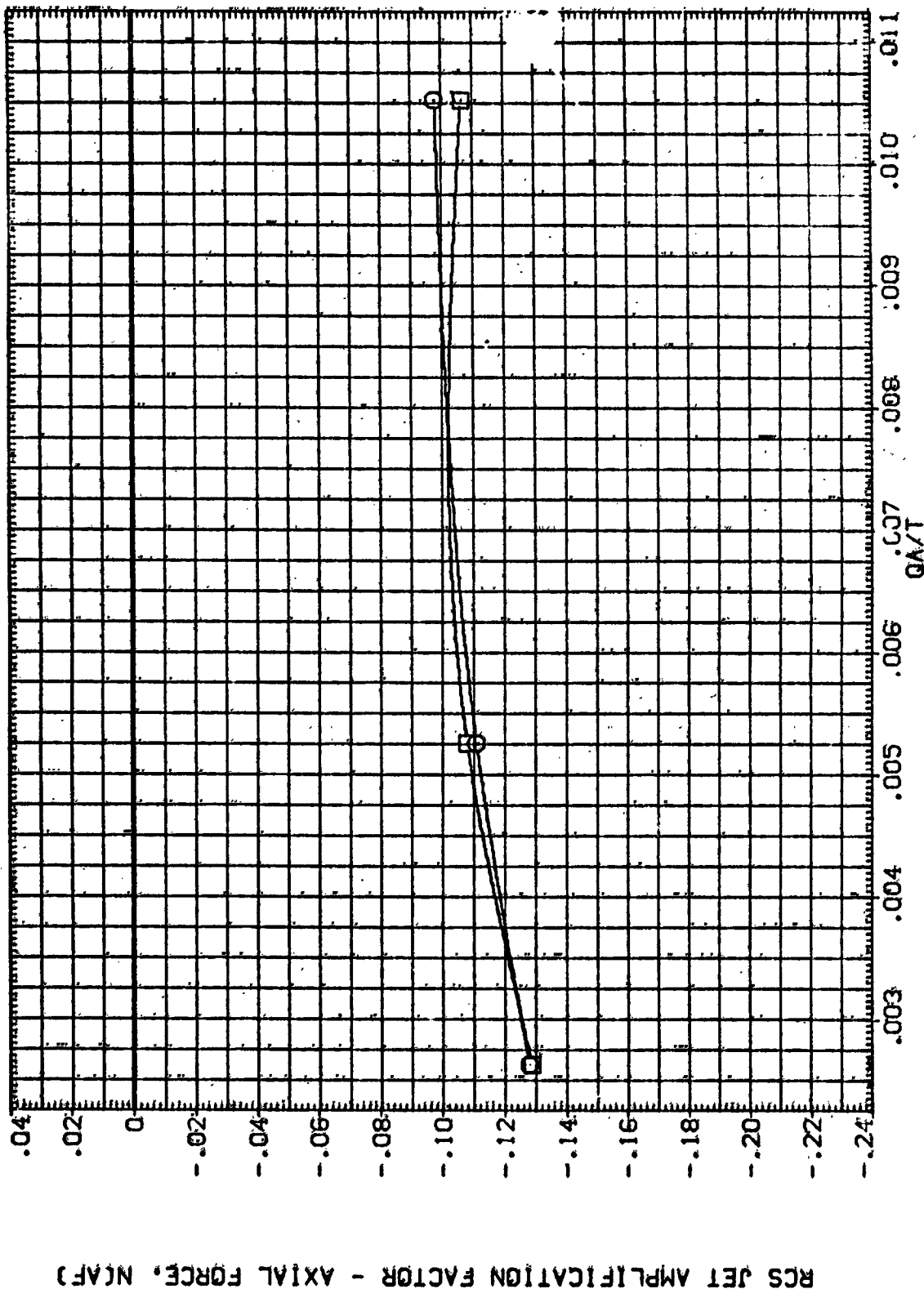


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR. JETS N79N78

(B) ALPHA = .00

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BCFLAP		BETA		REFERENCE INFORMATION	
(SJA015)	□	QIN79N78	LARC CFHT 118 (MA-22)	.000	.000	2.000	13.750	.000	.000	SREF	2690.0000	SO. FT.	
(XJAB09)		QIN79N78	LARC CFHT 118 (MA-22)	.000	.000	2.000	.000	.000	.000	LREF	474.8000	INCHES	
										BREF	936.6800	INCHES	
										XMRP	1076.7000	IN. TO	
										YMRP	375.0000	IN. TO	
										ZMRP	.0000	IN. TO	
										SCALE	.0100		

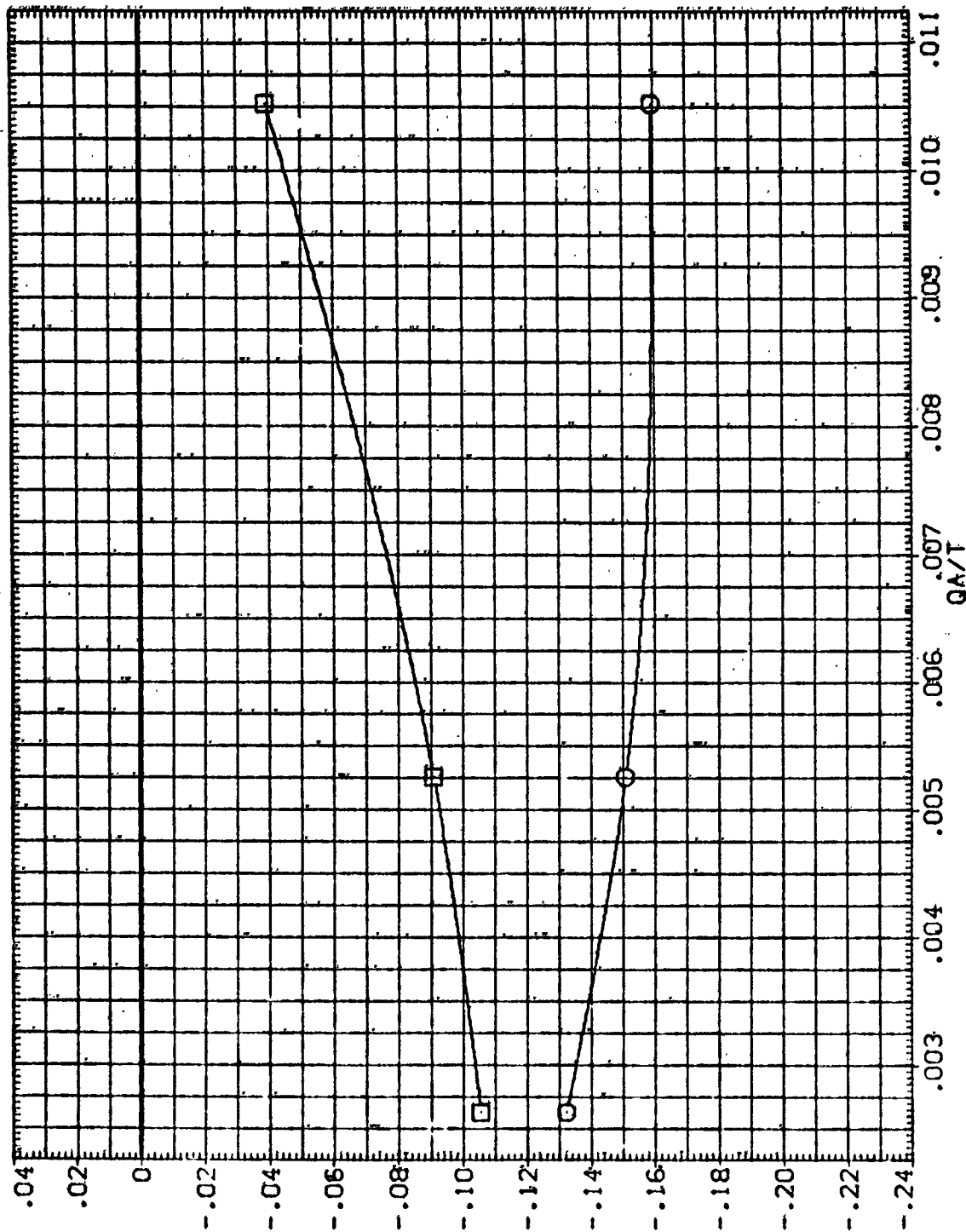


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(C)ALPHA = 10.00

DATA SET SYMBOL: (SJA015)
 (XJA009)

CONFIGURATION DESCRIPTION

QIN75N78 LARC CFHT 118 (MA-22)
 QIN75N78 LARC CFHT 118 (MA-22)

ELEVON NO. JET BOFLAP BETA

.000 2.000 .000
 .000 2.000 .000

REFERENCE INFORMATION

SREF 2690.0000 SQ. FT.
 LREF 474.8800 INCHES
 BREF 938.6800 INCHES
 XMRP 1076.7000 IN. XC
 YMRP .0000 IN. YD
 ZMRP 375.0000 IN. ZD
 SCALE .0100

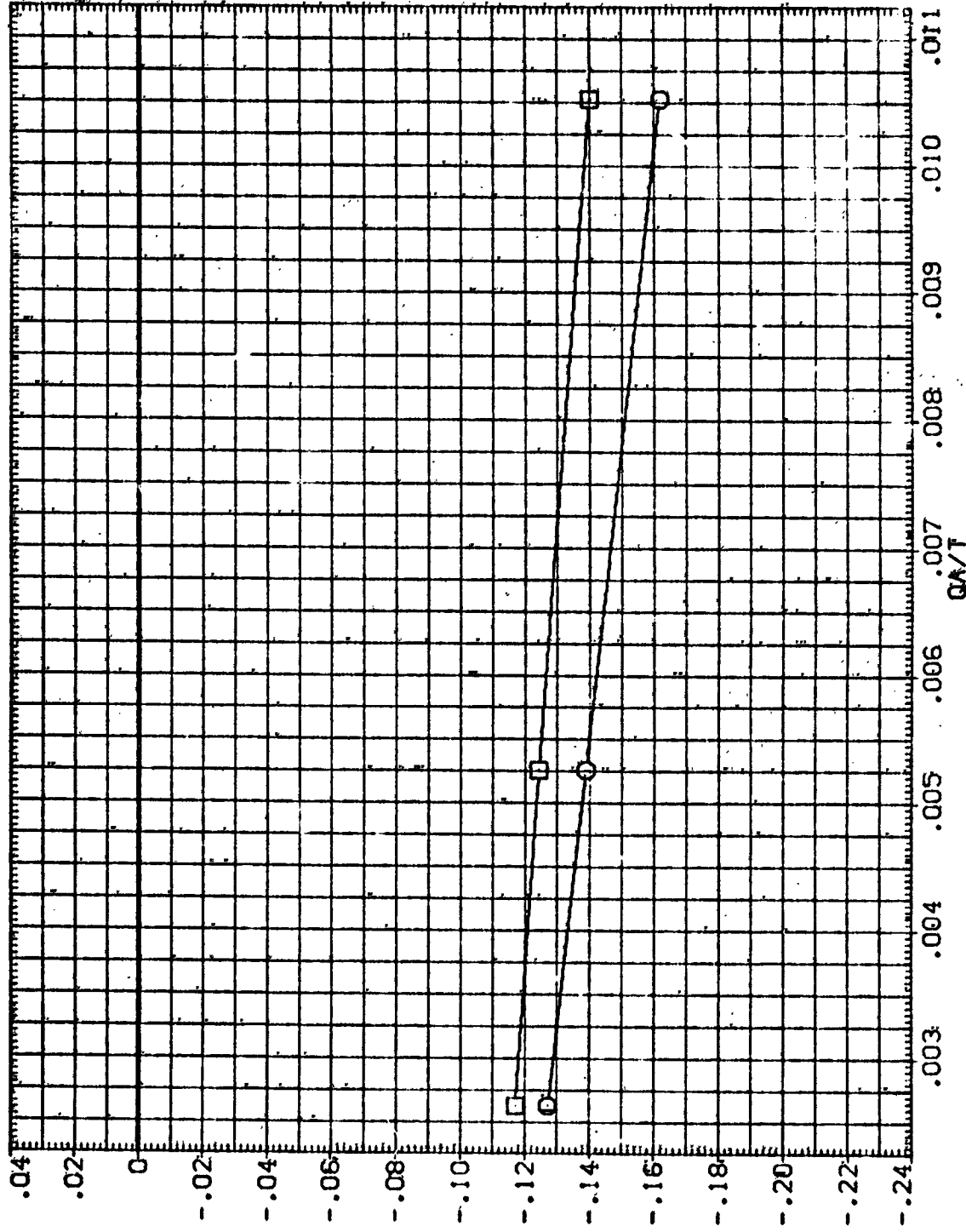
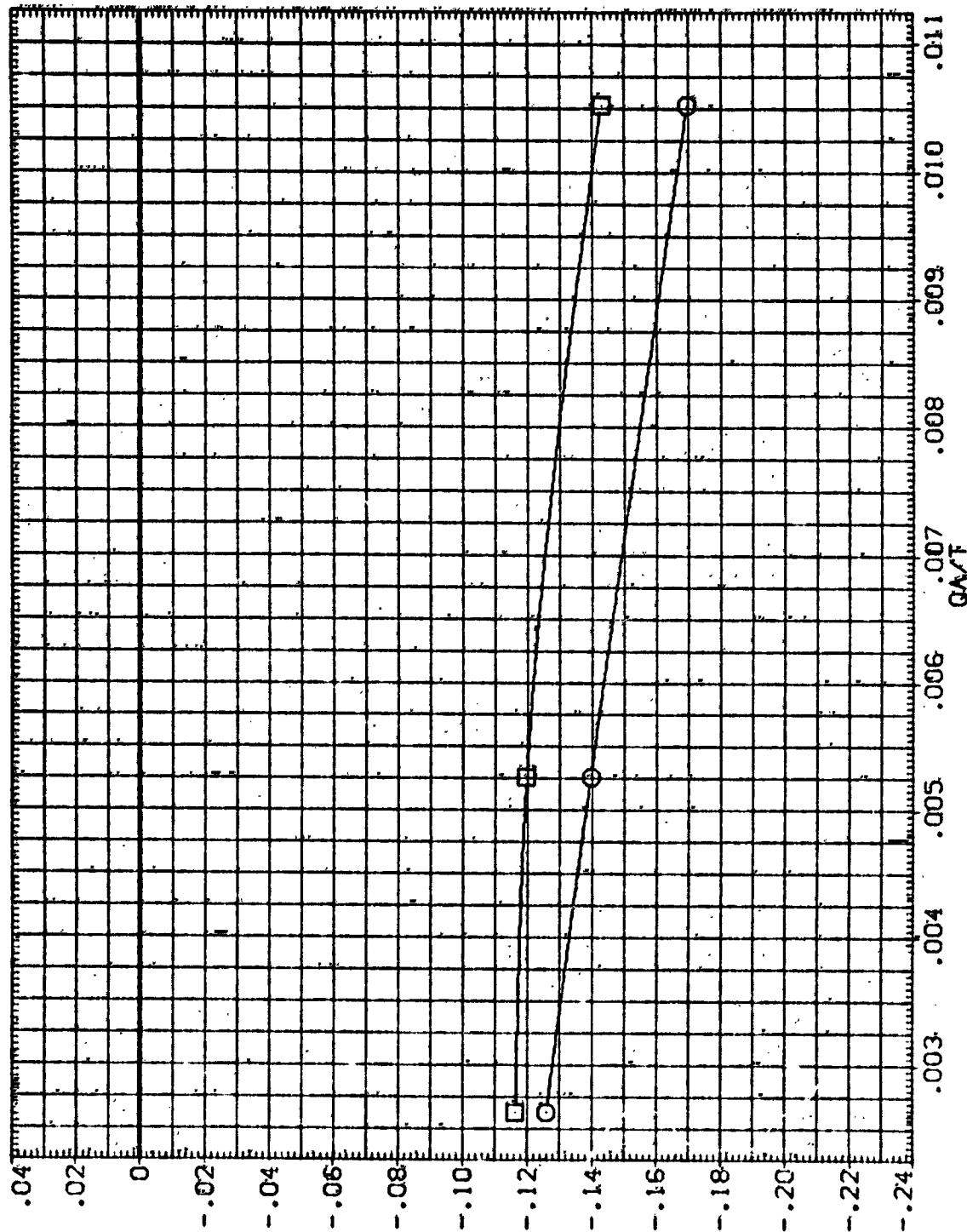


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JEIS N79N78

(C) ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(S1A613)	Q1N79N78 LARE CFMT 118 (MA-22)	.000	2.000	13.750	.000	SREF 2690.0000 SQ. FT.
(XUN203)	Q1N79N78 LARE CFMT 118 (MA-22)	.000	2.000	.000	.000	LREF 474.8000 INCHES
						BREF 936.6800 INCHES
						XHRRP 1076.7000 IN. XG
						YHRRP .0000 IN. YG
						ZHRRP 375.0000 IN. ZG
						SCALE .0100



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FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(E)ALPHA = 35.00

DATA SET SYMBOL: 8
 (SJA015)
 (XJ0005)

CONFIGURATION DESCRIPTION
 01N79N78 LARC CFHT 118 (NA-22)
 02N79N78 LARC CFHT 118 (NA-22)

ELEVON NO. JET BOFLAP BETA
 .000 2.000 13.750 .000
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0000

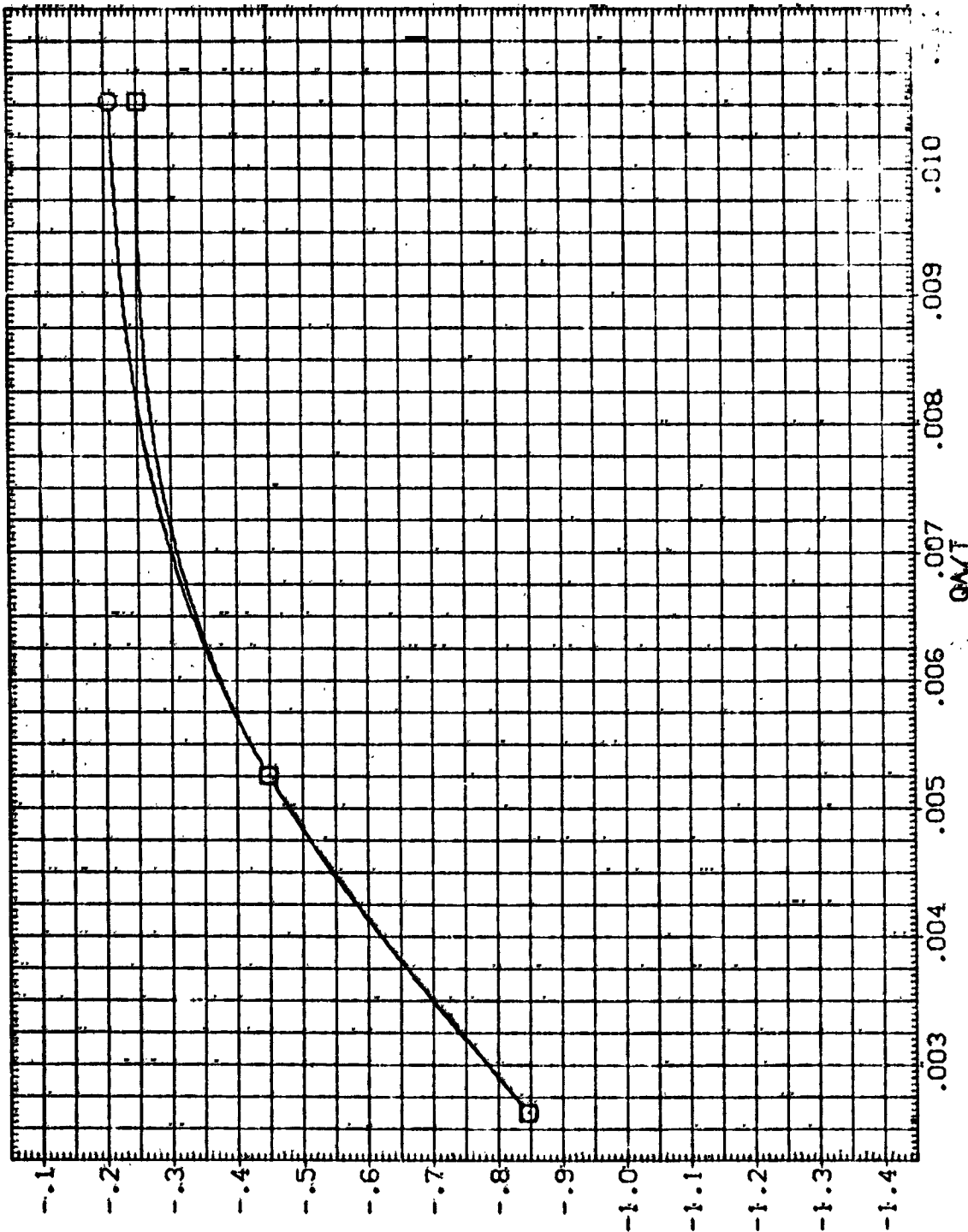


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(A) ALPHA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BD FLAP	BETA	REFERENCE INFORMATION
(SJAQ15)	01N79N78 LARC CPMT 118 (NA-22)	.000	2.000	13.750	.000	SREF 2690.0000 SQ. FT.
(KJAC09)	01N79N78 LARC CPMT 118 (NA-22)	.000	2.000	.000	.000	LREF 474.8800 INCHES
						BREF 936.6800 INCHES
						YMRP 1076.7000 IN. X0
						ZMRP .0000 IN. Y0
						SCALE 379.0000 IN. Z0

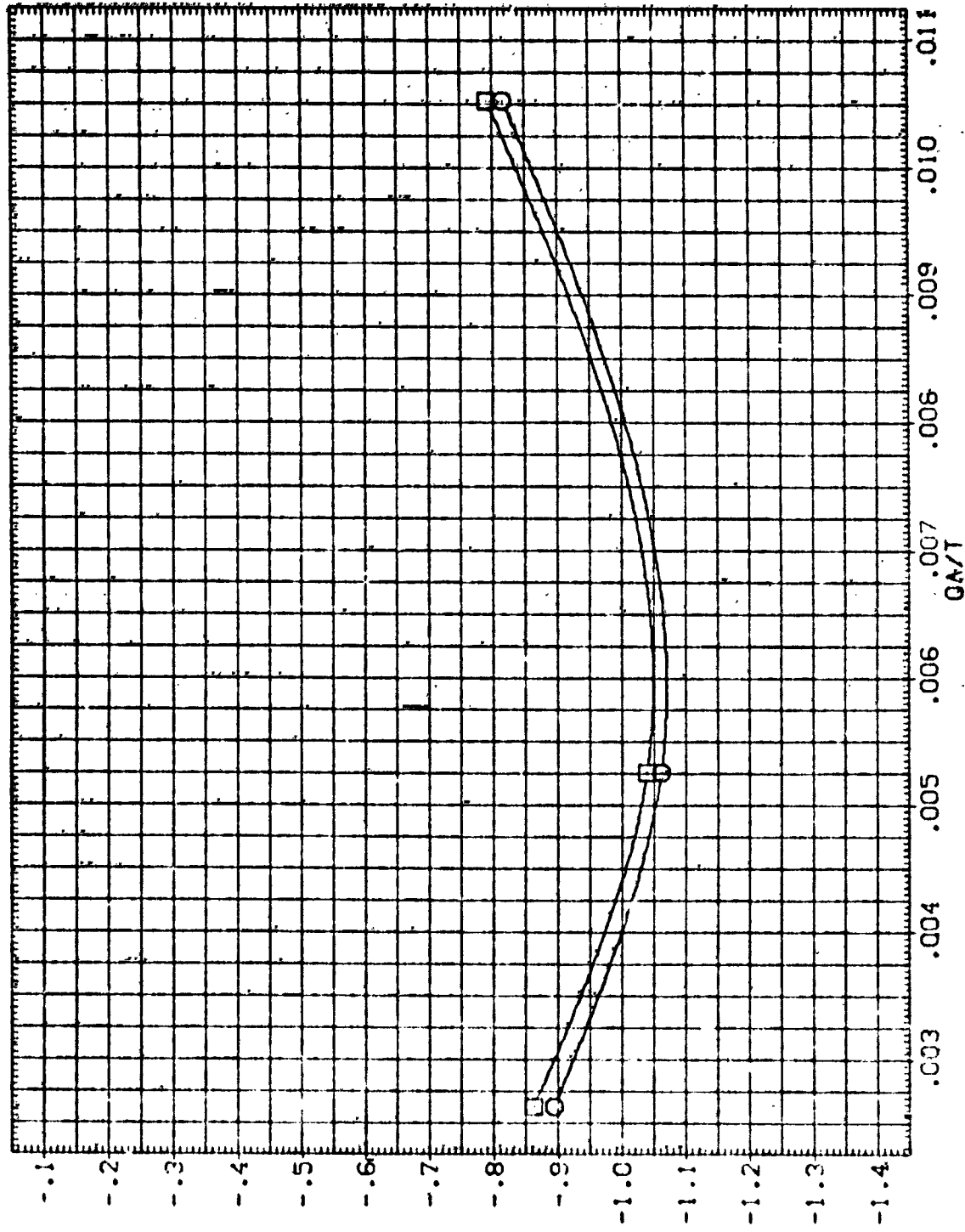


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(B) ALPHA = .00

DATA SET SYMBOL: 01N79N78
 (SIAQUS): 01N79N78 LARC CFMT 118 (MA-22)
 (XIAQUS): 01N79N78 LARC CFMT 118 (MA-22)

ELEVON: .000
 NO-JET: 2.000
 60FLAP: 13.750
 BETA: .000

REFERENCE INFORMATION:
 SREF: 2690.0000 INCHES
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XMRP: 1076.7000 IN. XQ
 YMRP: 379.0000 IN. YQ
 ZMRP: 379.0000 IN. ZQ
 SCALE: .0001

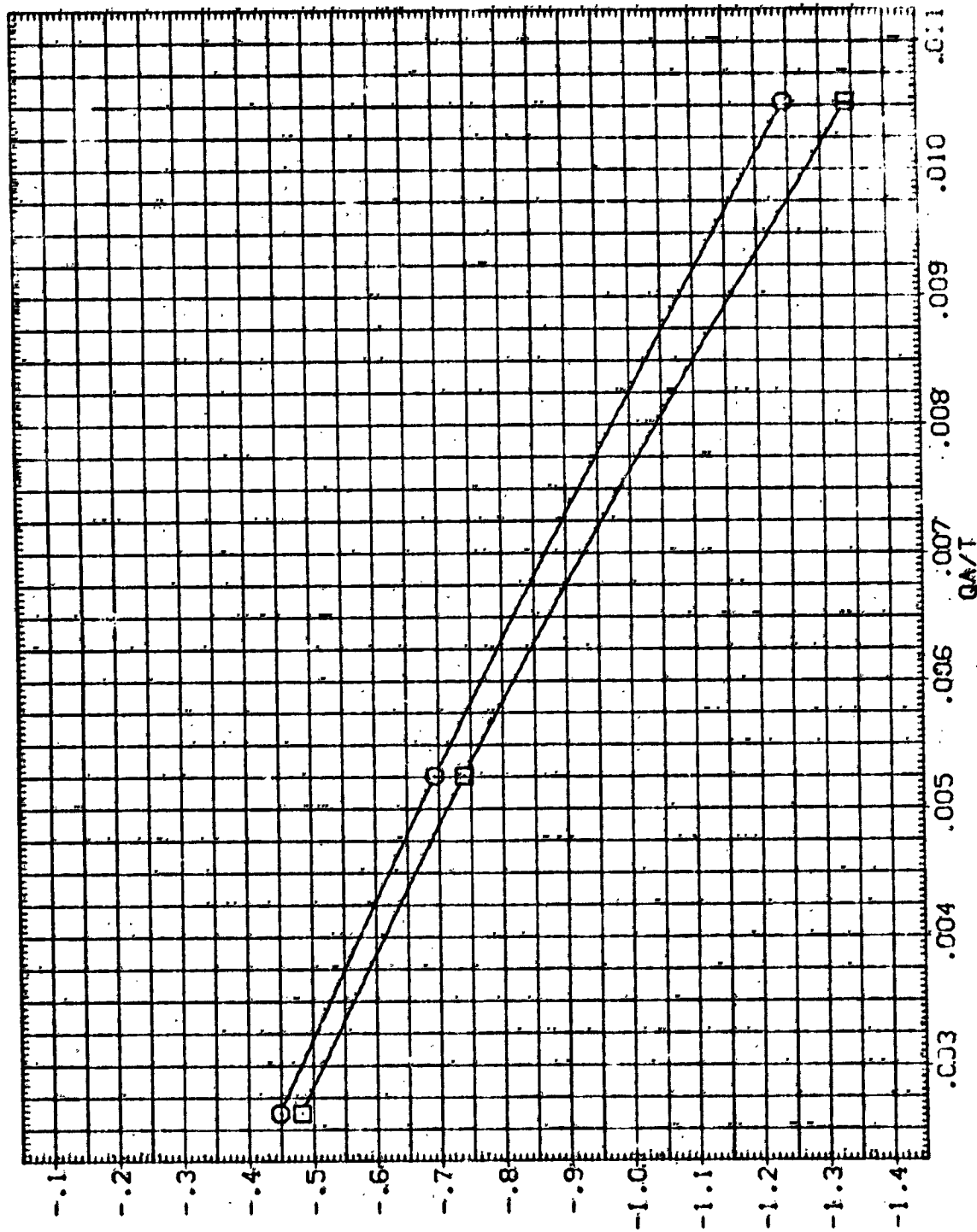


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(CJALPHA = 10.00)

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ELEVON		NO. JET		BDFLAP		BETA		REFERENCE INFORMATION	
(S)A015	8	01N79N78	LARC CPHT 118 (NA-22)	.000	.000	2.000	2.000	13.750	.000	.008	.000	SREF	2690.0000
(L)A008		01N79N78	LARC CPHT 118 (NA-22)	.000	.000	2.000	2.000	13.750	.000	.000	.000	LRREF	474.8000
												BRREF	936.6800
												XRREF	1076.7000
												YRREF	0000
												ZRREF	375.0000
												SCALE	.0100

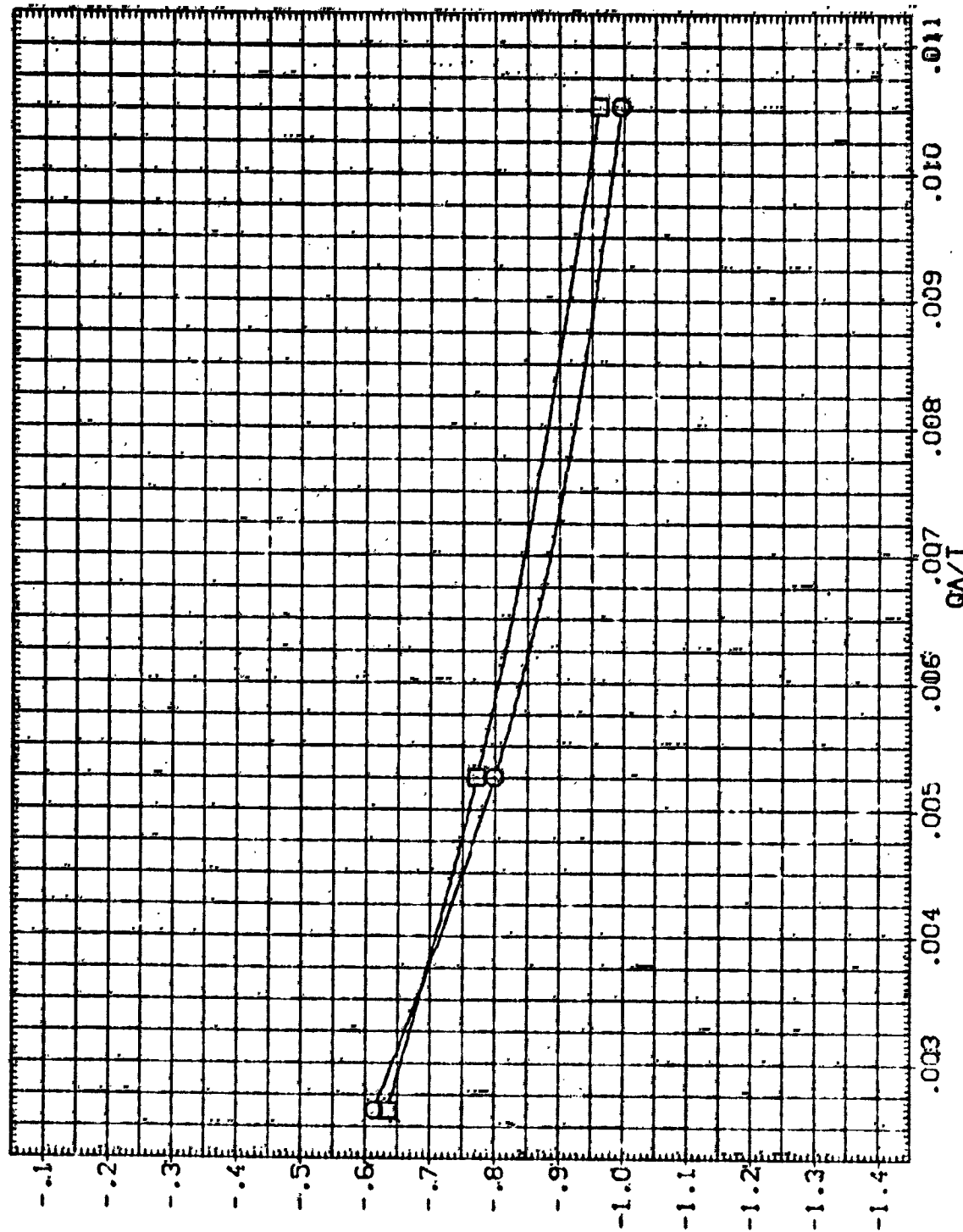


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(C) ALPHA = 20.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(STASIS) B	01N79N78 LARC CFMT 118 (MA-22)	.000	2.000	13.750	.003	SREF 2630.0000 3.000
(XJAO08)	01N79N78 LARC CFMT 118 (MA-22)	.000	2.000	.000	.003	LREF 474.8000 1.000
						BREF 936.6800 1.000
						YREF 1076.7000 1.000
						ZREF .0000 1.000
						SCALE .0100

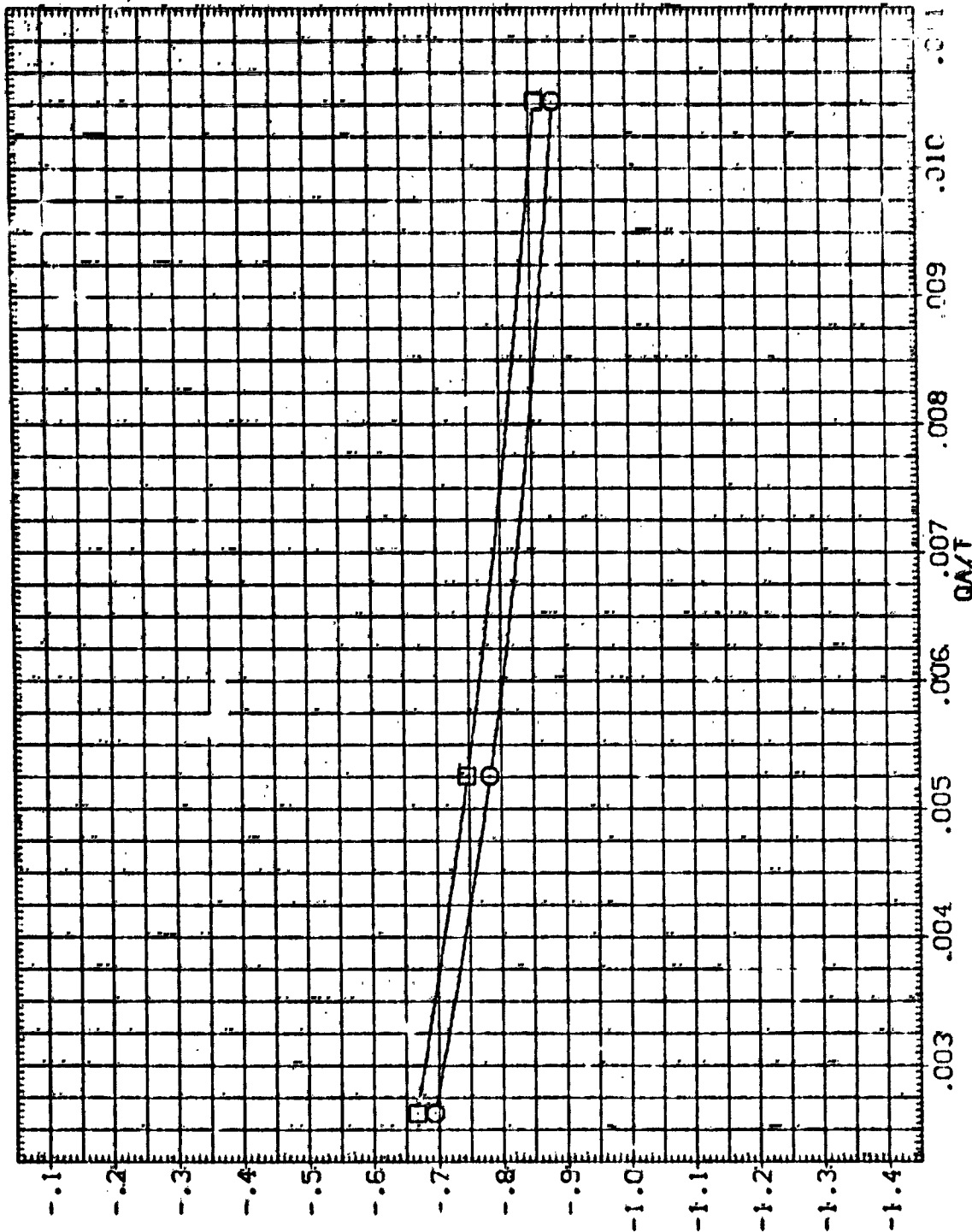


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(E) ALPHA = 35.00

DATA SET SYMBOL: 8
 (SJA015)
 (YJA003)

CONFIGURATION DESCRIPTION:
 QIN79N78 LARC CFMT 118 (MA-22)
 QIN79N78 LARC CFMT 118 (MA-22)

ELEVON: .000
 NO. JET: 2.000
 BOFLA: 13.75
 BETA: .000
 REFERENCE INFORMATION:
 SREF: 2690.0000 SQ. FT.
 LREF: 474.8000 INCHES
 BREF: 936.6800 INCHES
 XTRP: 1076.7000 IN. X0
 YTRP: .0000 IN. Y0
 ZTRP: 373.0000 IN. Z0
 SCALE: .0100

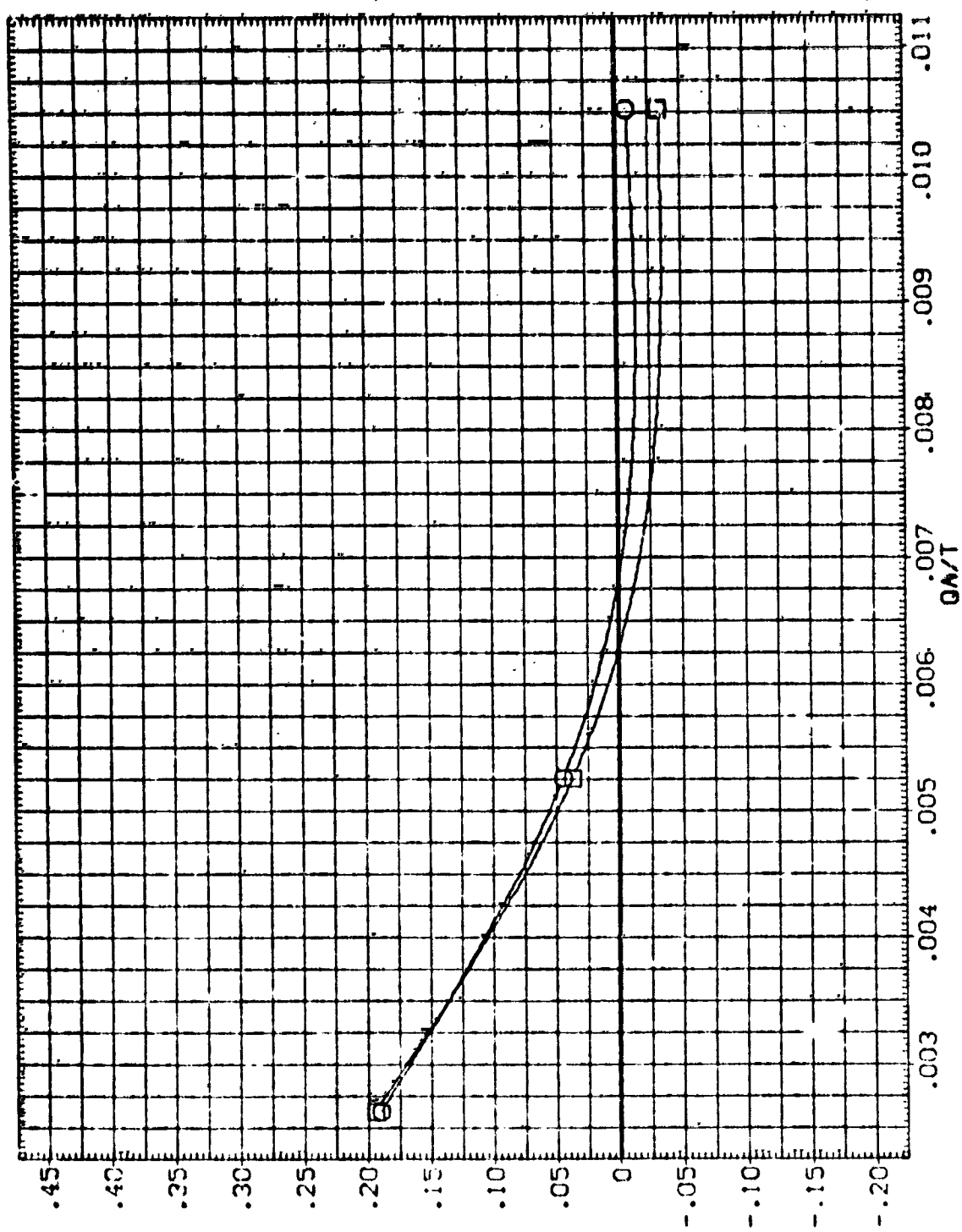


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR. JETS N79N.8

(ALPHA = -8.00

ELEVON	NO. JET	BOFLAP	SETA	REFERENCE INFORMATION			
.000	2.000	13.750	.000	SPD	2690.0000	SAFETY	50.000
.000	2.000	.000	.000	LREF	474.8000	INCHES	1.000
				BREF	936.6200	IN. X0	1.000
				YREF	1076.7000	IN. Y0	1.000
				ZHRP	.0000	IN. Z0	1.000
				SCALE	375.0000		.0100

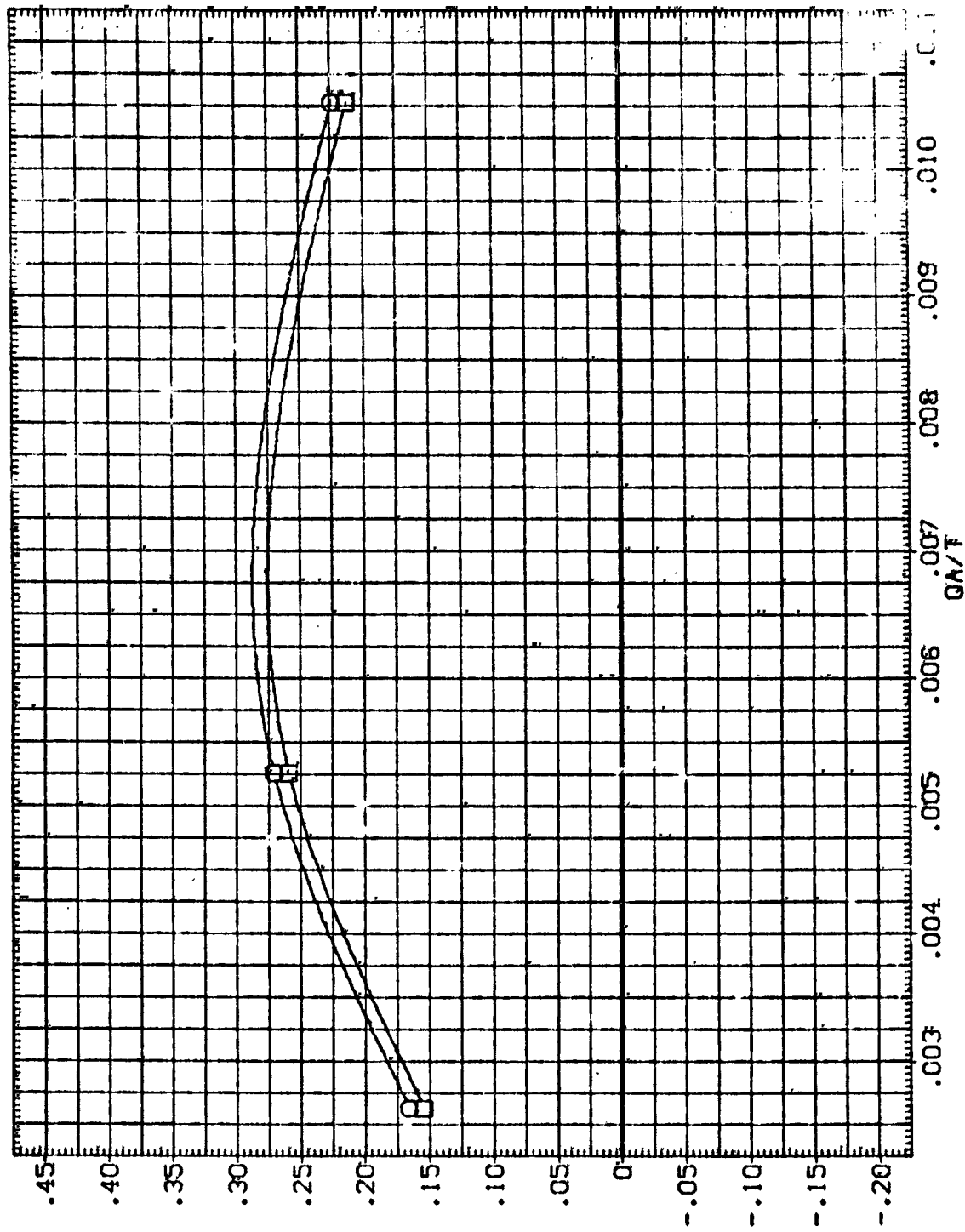
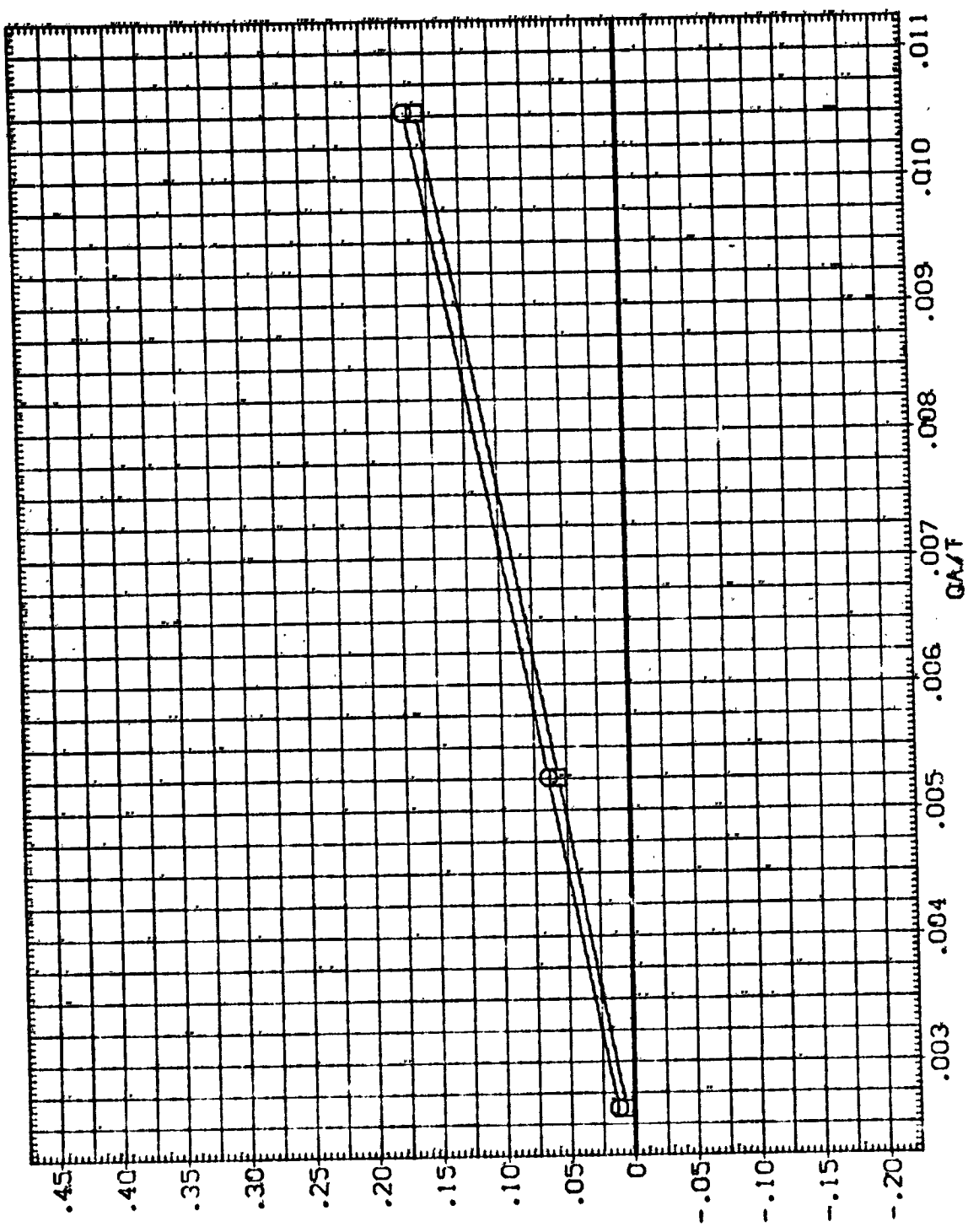


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(B) ALPHA = .00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJA015) 01N79N78 LARC CFMT 118 (MA-22)
 (XJA005) 01N79N78 LARC CFMT 118 (MA-22)


ELEVON .000 .000
 NO. JET 2.000 2.000
 BD FLAP 13.750 .000
 BETA .000 .000
 REFERENCE INFORMATION
 SREF 2690.0000 SC.FT.
 LREF 474.8800 INCHES
 BREF 936.6800 INCHES
 YMRP 1076.7000 IN. X0
 ZMRP .0000 IN. Y0
 373.0600 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR - YAW, N(YM)

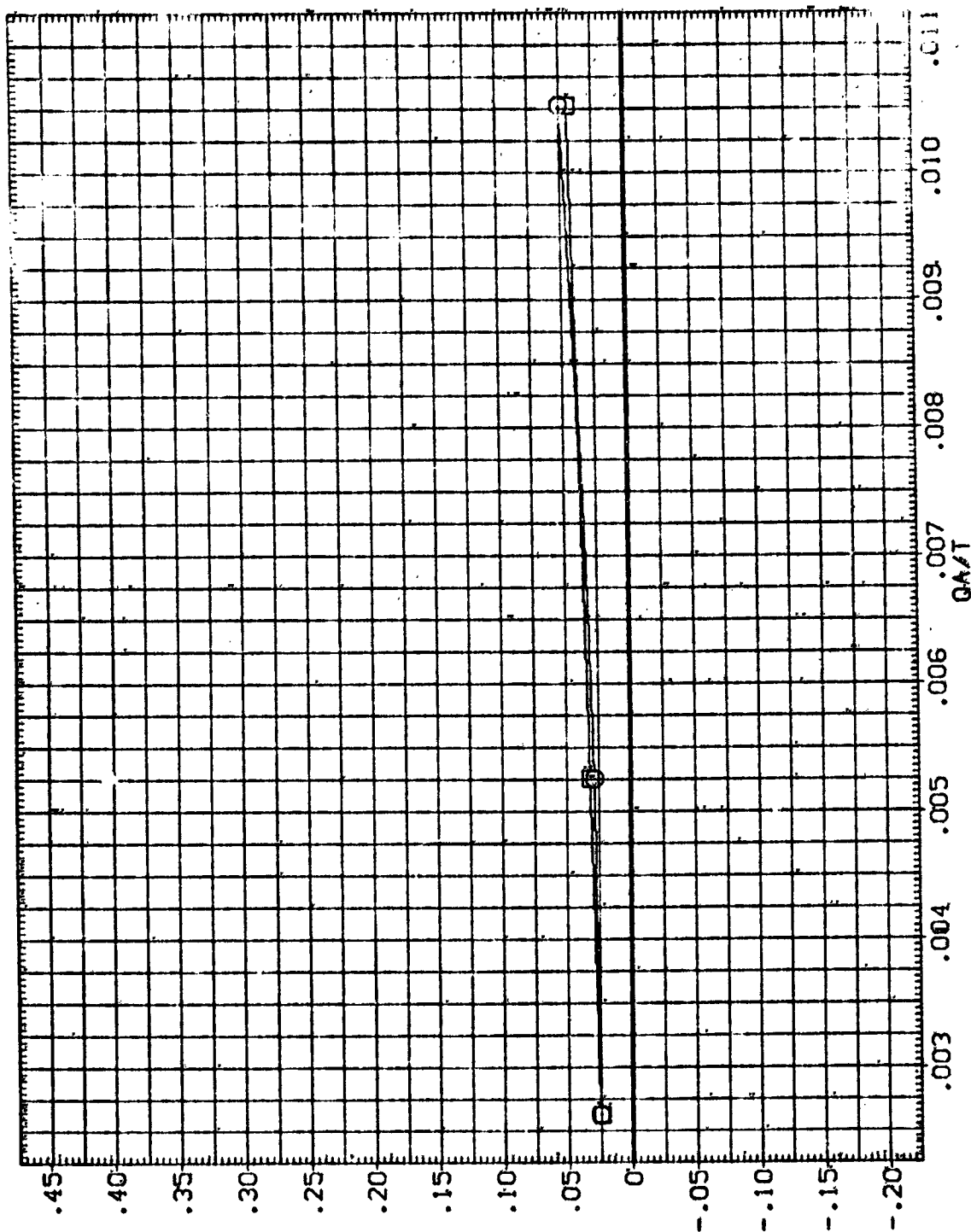
FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(C) ALPHA = 10.00

DATA SET SYMBOL (SJA015) (XJA009)  CONFIGURATION DESCRIPTION 01N79N78 LARE CFMT 118 (MA-22) 01N79N78 LARE CFMT 118 (MA-22)

ELEVON .000 .000 .000 NO. JET 2.000 2.000 BODY FLAP 13.750 .000 BETA .000 .000 .000

REFERENCE INFORMATION
 SREF 2690.0000 INCHES
 LREF 474.8000 INCHES
 BREF 936.6800 IN. X0
 XREF 1076.7000 IN. Y0
 YREF .0000 IN. Z0
 ZREF 375.0000 IN. Z0
 SCALE .0100



RCS JET AMPLIFICATION FACTOR = YAW, NCM)

FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(D)ALPHA = 20.00

DATA SET SYMBOL (SJA015) (XJA009)
 CONFIGURATION DESCRIPTION
 QIN79N78 LARE CFMT 118 (MA-22)
 QIN79N78 LARE CFMT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA
 .000 2.000 13.750 .000
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2690.0000 SQ. FT.
 LREF 474.8000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0000 IN. Y0
 ZMRP 375.0000 IN. Z0
 SCALE .0100

RCS JET AMPLIFICATION FACTOR - YAW, NCM

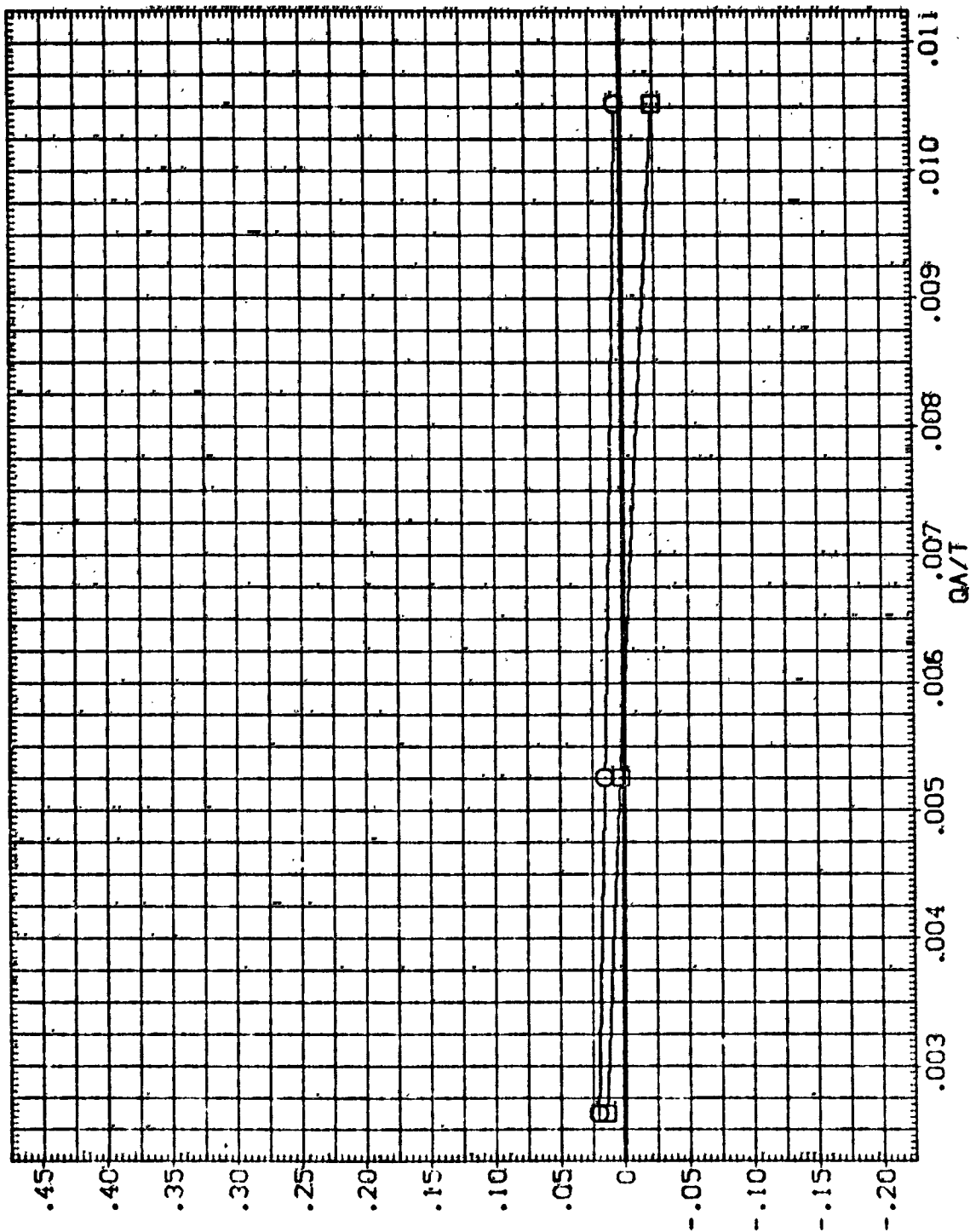



FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(E) ALPHA = 35.00

DATA SET SYMBOL (SJA015) (XJA008)  CONFIGURATION DESCRIPTION QIN29N78 LARC CENF 118 (MA-22) QIN79N78 LARC CENF 118 (MA-22)

ELEVON NO. JET BOFLAP BETA
.008 2.000 13.750 .000
.000 2.000 .000

REFERENCE INFORMATION
SREF 2690.0000 59.47
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1076.7000 IN. X0
YMRP .0000 IN. Y0
ZMRP 375.0000 IN. Z0
SCALE .0100

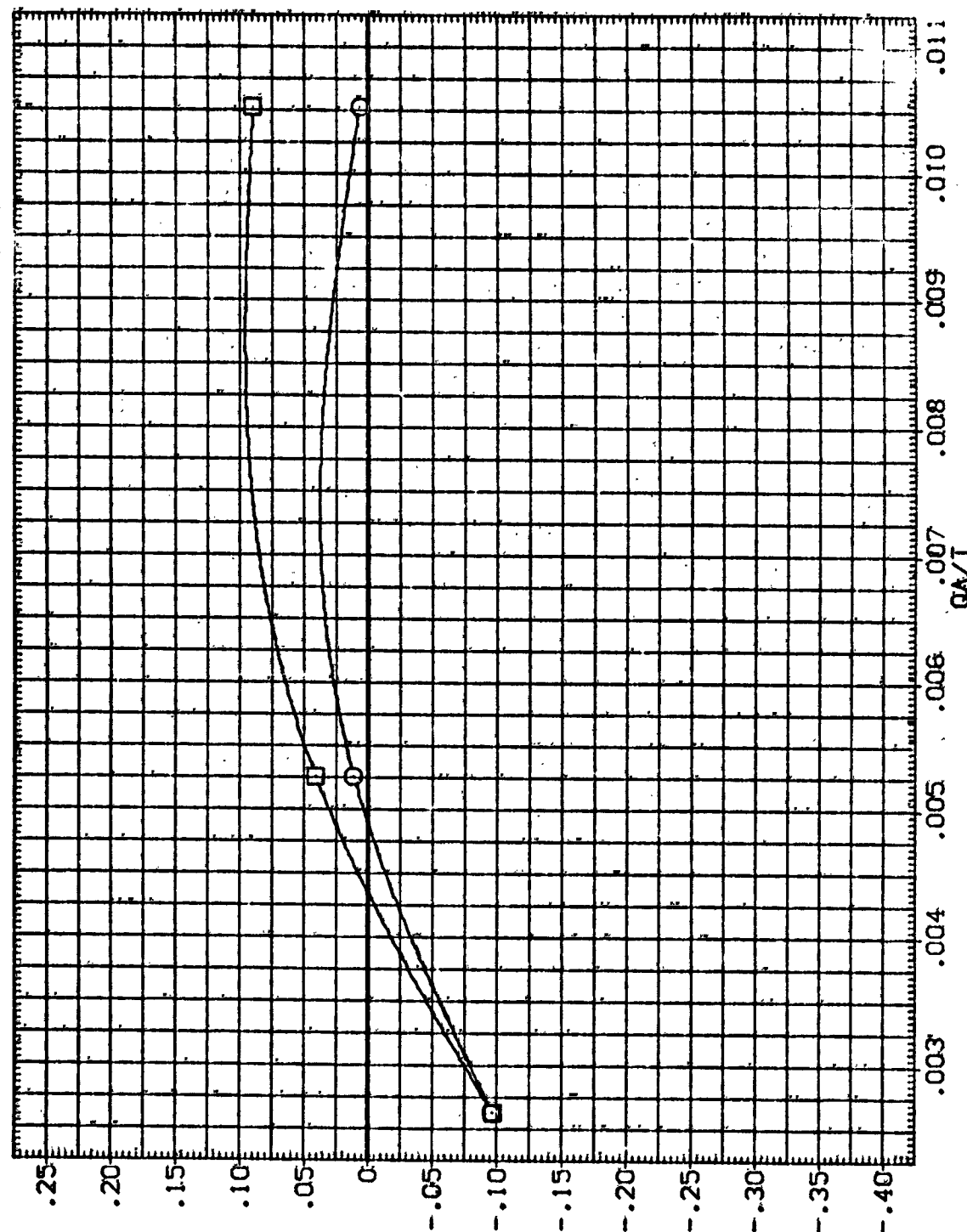


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(α)ALPHA = -8.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NO. JET	BOFLAP	BETA	REFERENCE INFORMATION
(SJAQ13)	Q1N79N78 LARC CEN7 118 (NA-22)	.000	2.000	13.758	.000	SREF 2690.0000 SO.FT.
(XJAG09)	Q1N79N78 LARC CEN7 118 (NA-22)	.000	2.000	.000	.000	LREF 474.8800 INCHES
						BREF 936.6800 INCHES
						XMRP 1076.7000 IN. X0
						YMRP .0000 IN. Y0
						ZMRP 375.0000 IN. Z0
						SCALE .0100

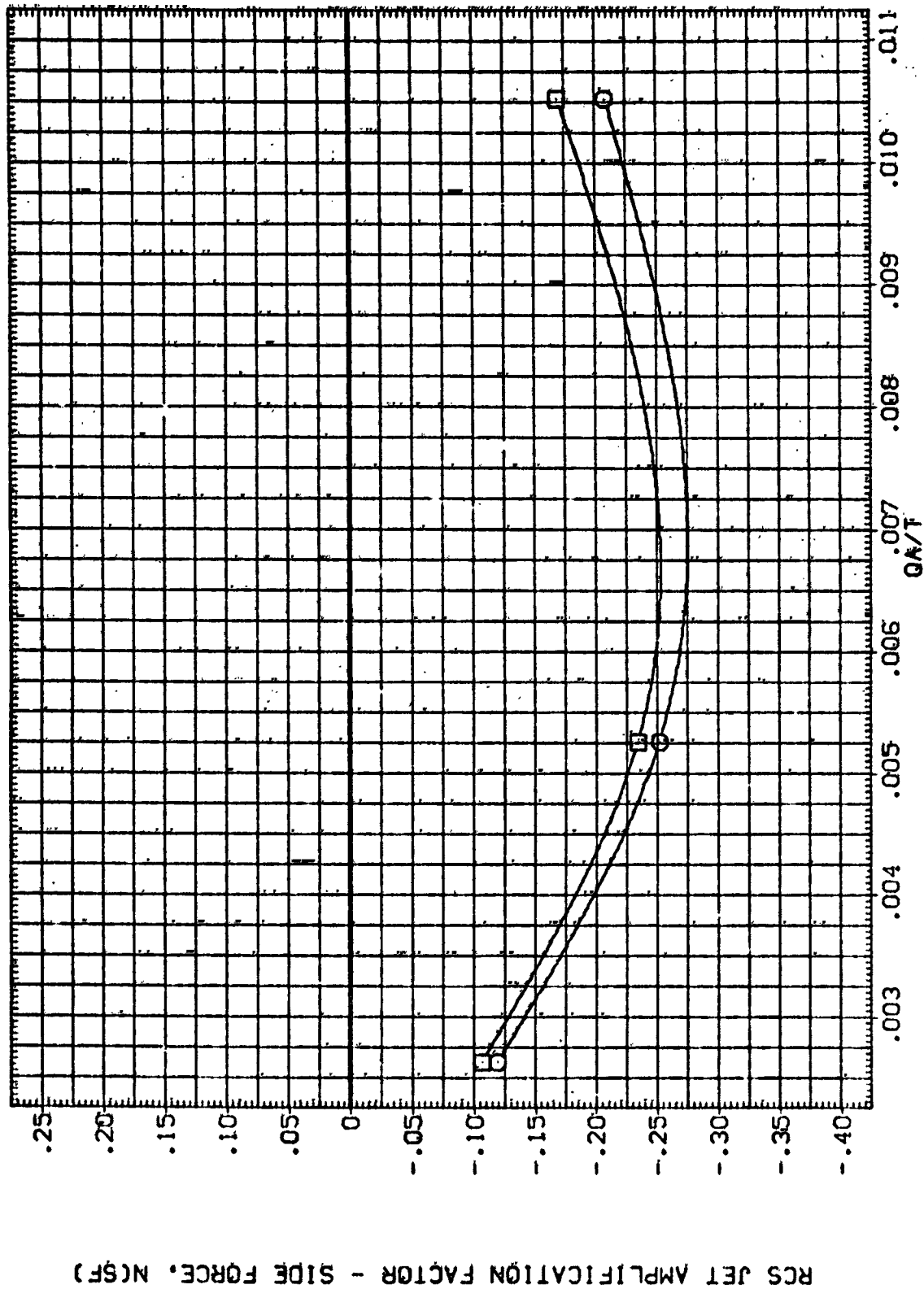


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(S)ALPHA = .00

DATA SET SYMBOL
(SJA015)
(XJAG09)

CONFIGURATION DESCRIPTION
QIN79N78 LARC CFMT 118 (MA-221)
QIN79N78 LARC CFMT 118 (MA-221)

ELEVON NO. JET BDFLAP BETA
.000 2.000 13.750 .000
.080 2.000 .000

REFERENCE INFORMATION
SREF 2890.0000 SQ. FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XTRP 1076.7000 IN. X0
YTRP 375.0000 IN. Y0
SCALE .0100

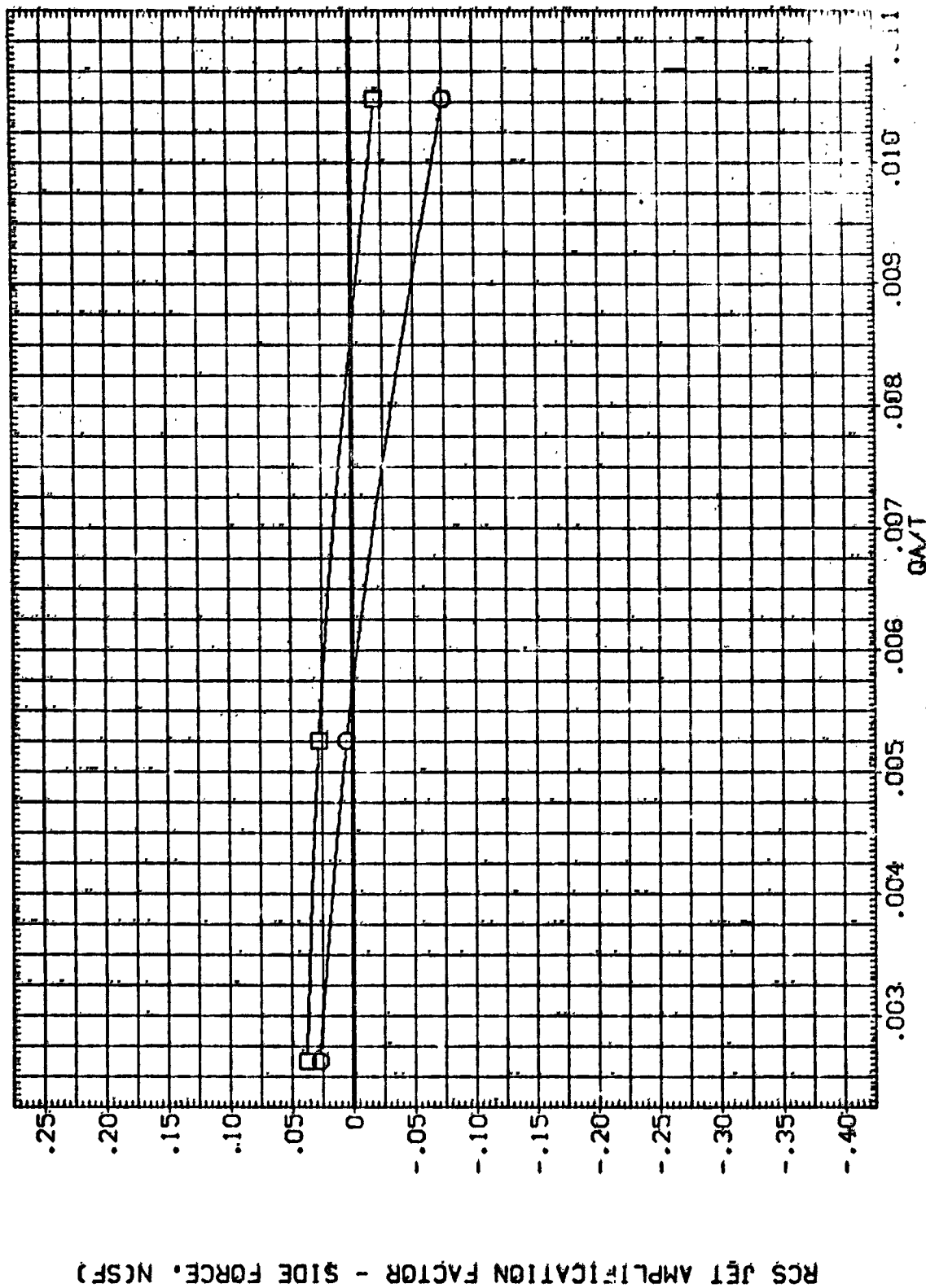


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(C)ALPHA = 10.00

DATA SET SYMBOL
(SJA015)
(XJAO09)

CONFIGURATION DESCRIPTION
QJN79N78 LARC CFMT 118 (MA-22)
QJN79N78 LARC CFMT 118 (MA-22)

ELEVON
.000
.000

N3 JET
2.000
2.000

BOFLAP
13.750
.000

BETA
.000
.000

REFERENCE INFORMATION
SREF 2690.0000 SQ.FT.
LREF 474.8000 INCHES
BREF 936.6800 INCHES
XMRP 1076.2800 IN. XD
YMRP .0000 IN. YD
ZMRP 3975.1000 IN. ZD
SCALE .0100

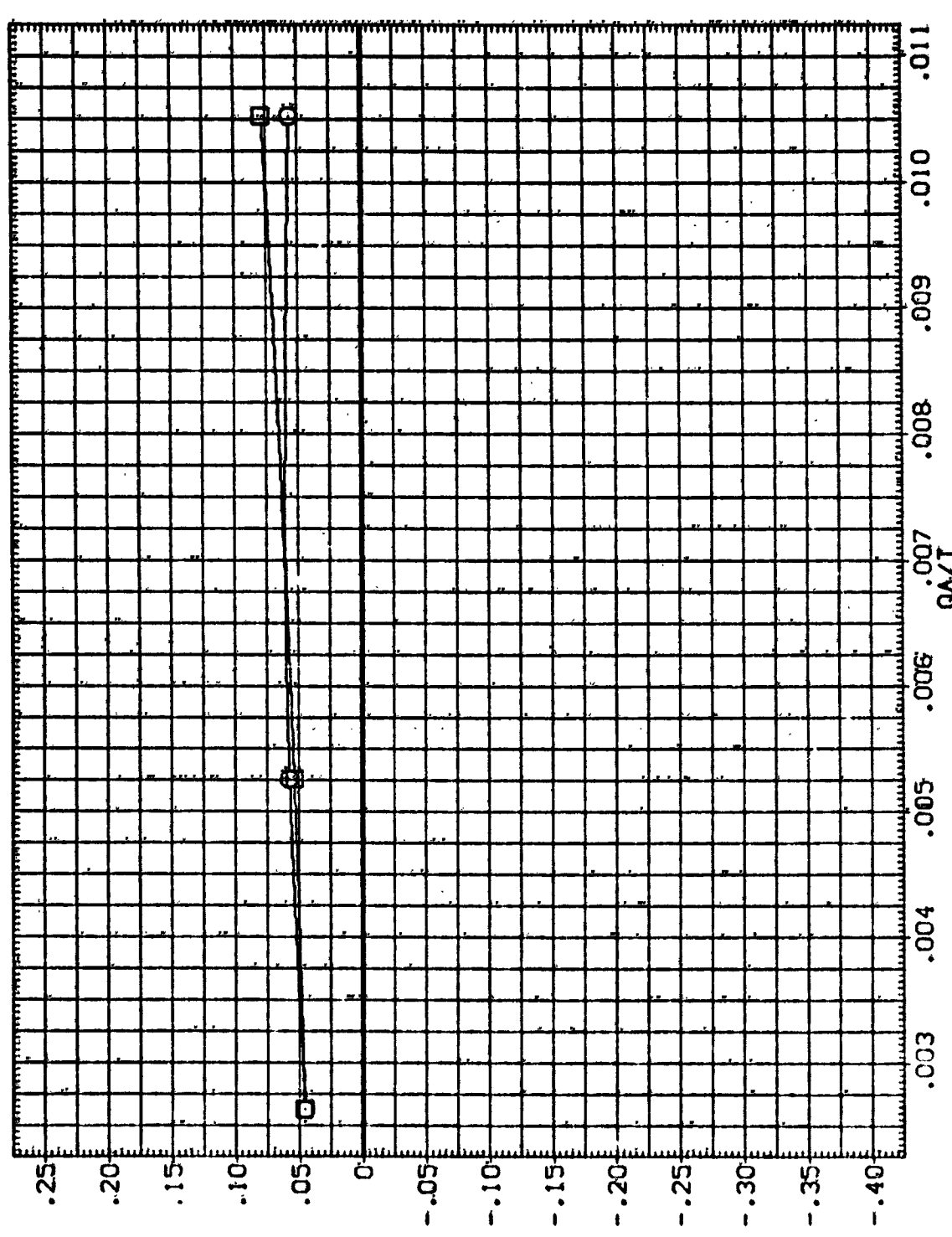


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N79N78

(CD ALPHA = 20.00)

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (SJAQ15) QUN75078 LARC CFHT 118 (MA-22)
 (XJM00S) QUN75078 LARC CFHT 118 (MA-22)

ELEVON NO. JET BDFLAP BETA
 .000 2.000 13.750 .000
 .000 2.000 .000

REFERENCE INFORMATION
 SREF 2890.0000 SO. FT.
 LREF 474.8000 INCHES
 BREF 906.6800 INCHES
 XMRP 1076.7000 IN. X0
 YMRP .0800 IN. Y0
 ZMRP 375.8000 IN. Z0
 SCALE .0100

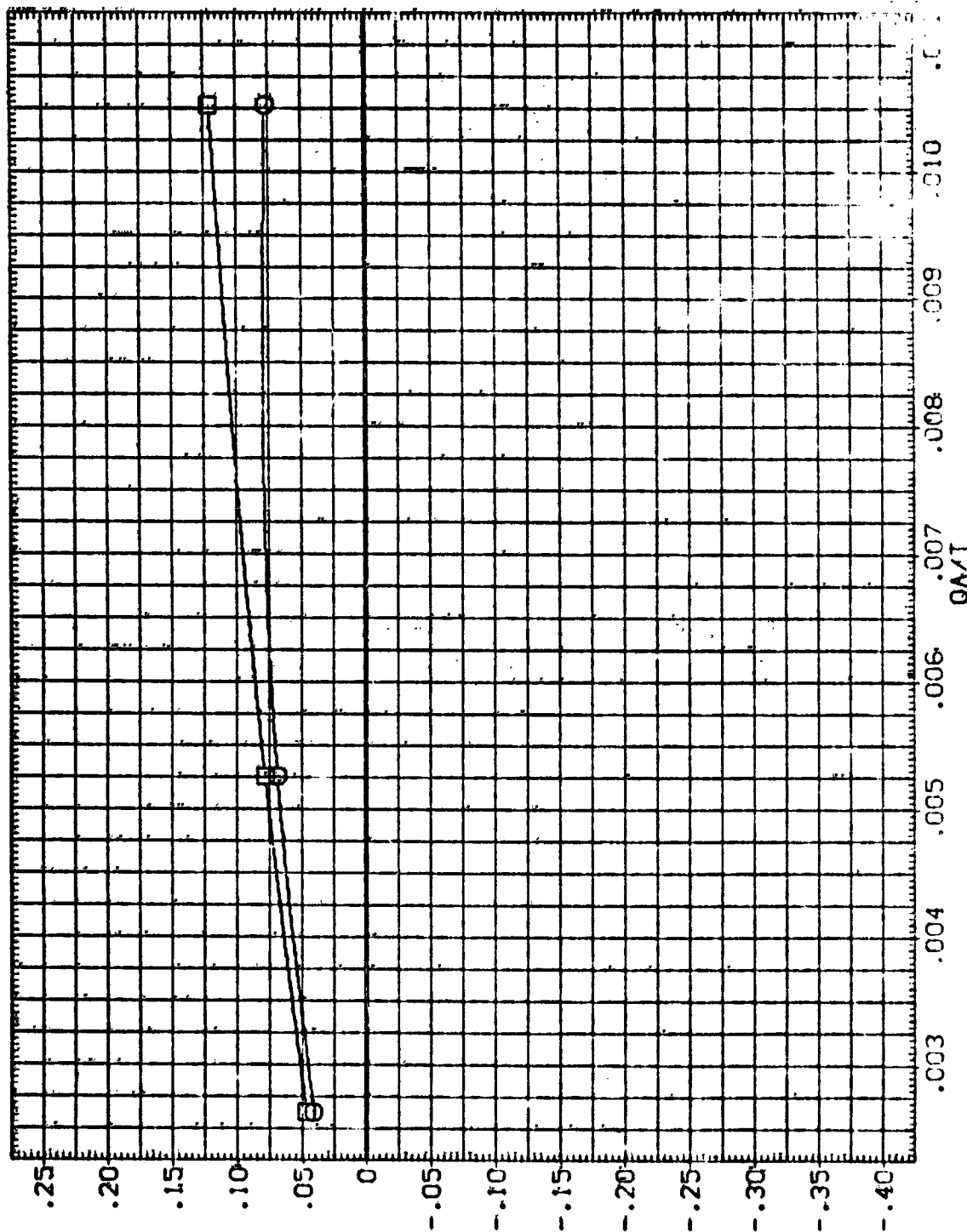


FIGURE 43. EFFECT OF BODY FLAP ON AMPLIFICATION FACTOR, JETS N73N78

(E)ALPHA = 35.00

PAGE 715